WHITE STREET LANDFILL PHASE II CORRECTIVE ACTION EVALUATION REPORT GREENSBORO, NORTH CAROLINA PERMIT # 41-03

S&ME Project No. 1584-98-081

Prepared For:



The City of Greensboro

Prepared By:



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EXECUTIVE SUMMARY

Pursuant to 15A NCAC 13B.1635 of the North Carolina Department of Environment and Natural Resources, Division of Waste Management (NCDENR) whenever it is demonstrated that one or more constituents listed in Appendix II has been detected at a statistically significant level exceeding the 15A NCAC 2L Groundwater Quality Standards (2L standards) and/or NCDENR Groundwater Protection Standards (GPS), the owner or operator shall initiate Assessment of Corrective Action Measures.

Several volatile organic compounds including benzene, trichloroethene, tetrachloroethene, vinyl chloride, and 1, 4-dichlorobenzene as well as the inorganic constituent thallium have exceeded the 2L standards and/or the GPS within the Phase II portion of the White Street Landfill compliance monitoring well network. These exceedances above the 2L Standard or GPS triggered the Assessment of Corrective Action Measures. This process requires Facilities to characterize the nature and extent of the plume as well as assess possible remedies to restore groundwater quality at the Facility to levels below the 2L standards, and prepare a Corrective Action Plan (CAP) to implement the appropriate remedy(s) to achieve compliance with the standards.

Based on the results of a Nature and Extent Study and Assessment of Corrective Measures Report completed by S&ME, Inc. on behalf of the City of Greensboro (City), the City selected Phytoremediation coupled with Monitored Natural Attenuation (MNA) to restore groundwater quality in the Phase II portion of the White Street Landfill.

In accordance with 15A NCAC 13B .1636 S&ME, Inc. prepared a Corrective Action Plan dated April 30th 2009 to implement the City's selected combined remedies of Monitored Natural Attenuation (MNA) coupled with Phytoremediation.

Pursuant to the NCDENR, Solid Waste Sections' guidance document MNA Excerpt from Examples of Approved Groundwater Corrective Measures For Solid Waste Management Facilities, June 2008, "The interpretation of the MNA performance parameter data and the technical evaluation of MNA as a remedy at the facility shall be presented in a comprehensive MNA Corrective Action Evaluation Report (CAER) at least once every five calendar years. The initial MNA Corrective Action Evaluation Report required for submission coincides with the minimum number of independent sampling data points required for most statistical or regression analyses." Accordingly, S&ME has prepared this initial CAER to evaluate the performance of MNA at the Facility since the minimum number of independent sampling data points for statistical and regression analyses has been completed at the Facility. Since MNA was coupled with Phytoremediation, this report was prepared subsequent to the 2011 installation of the Phytoremediation systems in select areas within Phase II.

This report has been prepared following the NCDENR Solid Waste Sections' <u>Guidelines</u> <u>for Corrective Action Evaluation Reports</u>. This CAER report finds that MNA is a viable corrective measure for the evaluated portions of Phase II of the White Street Landfill.

1.0 INTRODUCTION

1.1 Site Background

The White Street Landfill is located at the end of White Street in the City of Greensboro, North Carolina (reference **Figure 1**). The subject landfill contains three distinct phases, I, II, and III, which operated under Permit Nos. 41-03 (Phase I & II) and 41-12 (Phase III). Phase II of the landfill is an active construction, demolition, and debris landfill on top of a closed municipal solid waste (MSW) cell. The Phase II portion of the landfill was included under Permit No. 41-03. A detailed site map is included as **Figure 2**. The NCAC 2L Groundwater Quality Standards (2L standards) for several target constituents have been exceeded in Phase II of the facility at points along the north-northwestern property boundary. The nearest down-gradient receptor north-northwest of the facility is North Buffalo Creek.

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A Nature and Extent Study Report has been completed by S&ME describing the nature of the primary constituents of concern within Phase II exceeding their respective 2L standards, where the exceedances occurred within the compliance network, and to what extent the 2L standards were exceeded. The results of the Nature and Extent Study indicated that organic constituents tetrachloroethene (PCE), trichloroethene, benzene, 1,4 dichlorobenzene, and vinyl chloride, as well as inorganic constituents thallium and vanadium, exceeded the 2L standards and/or NCDENR Groundwater Protection Standards (GPS) values within the Nature and Extent Study (NES) wells at the northnorthwestern property boundary near North Buffalo Creek.

Subsequent to the completion of the Nature and Extent Study, S&ME completed an Assessment of Corrective Measures Report (ACM) which documented the potential corrective measure options and recommended, with public input, measures that are appropriate for the facility based on the magnitude of the constituents of concern. The ACM evaluated "The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination; the time required to begin and complete the remedy; the costs of remedy implementation; and the institutional requirements such as State and Local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s)," as per 15A NCAC 13B.1635 of the NCDENR DWM.

In order to incorporate comments from the general public regarding the selection of the remedy for the Phase II portion of the White Street Landfill, the City of Greensboro held a public meeting on December 20, 2007 at 6:30PM at the Peeler Recreational Facility in Greensboro. An announcement of the public meeting was run in the local newspaper for two consecutive weeks prior to holding the public meeting. The above mentioned NES and ACM Reports were displayed for public review at two local libraries. Both of these Reports were approved by NCDENR.

Subsequent to the original submittal of the NES and ACM Reports, it was decided between S&ME and the City of Greensboro to include Phytoremediation as an integral part of the Facility's selected remedies to restore groundwater quality and attain the

approved GPS. In order to recommend Phytoremediation as part of the selected remedy the Facility's ACM had to be amended to include Phytoremediation as a possible remedy. The ACM was amended to include Phytoremediation, and in order to satisfy the requirements of 15A NCAC 13B.1635 (d), the amended ACM was made available for public review at two public libraries for a 30-day public comment period followed by a subsequent public meeting with interested and affected parties. The second public meeting was held on June 19, 2008 at the Peeler Recreational Facility in Greensboro.

The final step in the Assessment of Corrective Measures process was to prepare a Corrective Action Plan to implement the selected remedy(s) outlined in the ACM Report. In accordance with the guidelines set forth in 15A NCAC 13B.1636, S&ME prepared a Corrective Action Plan (CAP) for the White Street Landfill Facility which was issued and dated April 30, 2009. The CAP outlined the necessary course of actions to implement the selected remedies of MNA and Phytoremediation at the Facility, described the required revisions to the Facility's Water Quality Monitoring Plan (WQMP), discussed the implementation schedule, and included an estimated projected schedule to meet the requirements of 15A NCAC 13B.1636 (b) (2) to "attain the approved Groundwater Protection Standards (GPS)" and provides for the protection of human health and the environment.

Subsequent to the completion and approval of the CAP additional groundwater quality data was obtained, which demonstrated a reduction in the CAP listed constituents of concern and projecting a potential for achieving groundwater quality compliance near term at select compliance points without implementation of additional corrective measures. On February 3, 2010 S&ME submitted a Request to Suspend Construction of Select Phytoremediation Beds (Amendment to Corrective Action Plan) to NCDENR. The request included:

- 1. Elimination of thallium as a current COCs requiring corrective measure, thereby, eliminating the need to construct phytoremediation beds at locations associated with wells II-6, II-11, and II-12.
- 2. Installing sentinel well SMW-4 and assessing groundwater quality prior to the installation of the phytoremediation bed associated with well II-6. Considering the close proximity of compliance well II-6 to the waste boundary, if groundwater quality at SMW-4 documented compliant conditions, installation of the phytoremediation bed associated with well II-6 would be postponed until required by regulation.
- 3. Suspending the installation of phytoremediation beds in the area of well II-7 based the concentrations of COCs at monitoring well II-7 and the minute degree of separation between the current COC concentrations and the corresponding 2L Standards. The CAP approved MNA program would be implemented at II-7.

On April 29, 2010, NCDENR approved the requested suspension of the installation of sentinel monitoring wells SMW-2 and SMW-5 and the certain Phytoremediation Beds. During 2010 additional investigations were completed in order to prepare a final design for the Phytoremediation system.

Between July 8 and 9, 2010, three new sentinel monitoring wells were installed downgradient of each of the compliance and former NES monitoring well in which current COCs have been detected at concentrations exceeding the 2L Standard. Sentinel monitoring wells SMW-1, SMW-3, and SMW-4 were installed down-gradient of monitored unit Phase II, prior to North Buffalo Creek, and prior to the Compliance Boundary. Sentinel well SMW-1 was installed down-gradient of compliance well II-2, SMW-3 was installed down-gradient of NES well II-9, and SMW-4 was installed downgradient of compliance well II-6. These wells will serve to monitor groundwater quality after interaction with the phytoremediation beds and/or prior to groundwater discharging to North Buffalo Creek. The wells monitor the same portion of the uppermost aquifer as the affected compliance or NES wells up-gradient of their location. The locations of the sentinel monitoring wells are illustrated on Figure 2.

S&ME teamed with Ecolotree® of North Liberty, Iowa to complete certain site specific pre-design inspections needed to complete the final design and confirm the planned use of a perimeter deep-rooted phytoremediation system, referred to by Ecolotree® as an EBuffer®. In concept, the EBuffer® uses poplar trees to remove certain groundwater pollutants as shallow groundwater passes through a dense root zone below the planted buffer. In essence, the EBuffer® is a narrow subsurface reactor that acts as a final filter around selected portions of a landfill, capable of reducing the concentrations of certain contaminants in the shallow groundwater, through biological reduction and absorption methods. The EBuffer® also provides beneficial use of groundwater and reduces plume migration using a "sponge and pump" process.

On April 3, 2011, S&ME and Ecolotree® commenced with the installation of two EBuffer® units along select portion of White Street Landfill, Phase II. One EBuffer® referred to as the North EBuffer® was installed between NES well II-9 and sentinel well SMW-3. The second EBuffer® referred to as the South EBuffer® was installed in the vicinity of compliance well II-1. Figure 2 depicts the EBuffer® locations and the locations of the associated groundwater monitoring wells. Following installation, S&ME has performed monthly inspection of the EBuffer® system to monitor tree growth, tree damage, tree mortality, and other factors. To date, the overall tree growth and survival rates have met expectations; with one exception. Based on the monthly inspection reports, an isolated segment of the Northern EBuffer® area exhibited evidence of some zonal tree death. After examining the available observation data, Ecolotree recommended a partial replanting of the hybrid poplar trees in the area of concern. On July 13, 2011, 50 hybrid poplar trees were planted to replace dead poplars in the Northern Ebuffer®. Subsequent monthly Ebuffer® inspections indicated survival of some of replanted trees. It is currently believed that minor modifications of the land surface are needed to improve drainage in the area of concern. A 2012 late winter/early spring replant will address these areas of concern and the future effectiveness of the Ebuffer®.

1.2 Aguifer Characteristics

The uppermost aquifer was characterized during a subsurface exploration program executed by BPA Environmental and Engineering Inc. (BPA). This program was initiated during installation of the initial groundwater monitoring network during February, 1996. In situ hydraulic conductivity tests were performed by BPA on wells I-5, II-1, II-2, II-3, II-4, II-5, and MW-13. The data from these tests yielded hydraulic

conductivity values ranging from 0.042 feet/day in II-5 to 0.380 feet/day in II-3. A complete discussion of the test methods and calculations is presented in BPA's February 1996 report "In-situ Hydraulic conductivity Testing, White Street Landfill, Greensboro, North Carolina". In-situ hydraulic conductivity tests were performed by HDR Engineering, Inc. on monitoring wells II-6, II-7, II-8, and MW-14 in the fall of 1995. The hydraulic conductivities determined by HDR ranged from 0.221 feet/day in II-6 to 2.353 feet/day in II-8. These data were used to calculate groundwater flow velocities across the site.

The static water levels in the Phase II monitoring wells were measured during October 2011. During the October 2011 sampling event, the static water depths ranged from 7.18 feet to 31.92 feet below the top of well casing on these dates. Groundwater and well casing elevation data are presented in **Table 1**. A groundwater contour map was constructed using the data collected during October 2011 is presented as **Figure 3**. The groundwater elevation data collected during this monitoring event indicates that the groundwater beneath Phase II generally flows toward the northwest, toward Buffalo Creek. This is, in general, consistent with the results from previous monitoring events.

The groundwater gradient at select well locations was calculated assuming a constant groundwater gradient along the flow line between groundwater elevation contours adjacent to each well. Groundwater flow lines were drawn through each well based upon the groundwater elevation data collected during this monitoring event.

Based on a variation of Darcy's Law, the rate of groundwater movement within the regolith aquifer was calculated at each monitoring well using the following equation:

$$V = \underline{Ki}$$
 Where $V = \text{velocity (ft/day)}$
 $K = \text{hydraulic conductivity (ft/ft)}$
 $i = \text{groundwater gradient (ft/ft)}$
 $N = \text{effective porosity (dimensionless)}$

Calculated hydraulic conductivity and gradient values and estimated effective porosity values for each well were used in the velocity calculations. The 20 percent effective porosity value is based on porosity and specific yield versus grain size distribution relationships presented in Fetter (1988), and is typical of the types of soils (predominantly silts and sandy silts with some clays) comprising the regolith at the landfill. The calculated groundwater seepage velocities ranged from 0.008 feet/day to 0.192 feet/day and are summarized in **Table 2**.

Calculation methodology is described in the following sections.

1.5.1 Darcy's Velocity

In 1856, Darcy first characterized flow through a porous media. Darcy's Law states that; Q = kiA where;

 $\mathbf{Q} = \text{Rate of flow, [cm3/sec]}$

k = Hydraulic Conductivity, [cm/sec]

I = Hydraulic gradient = dh/dl

A = Cross sectional area, perpendicular to direction of flow [cm2]

Therefore, flow is equal to the velocity of the fluid multiplied by the cross-sectional area where flow is occurring. This yields Darcy's velocity.

1.5.2 Seepage Velocity

The seepage velocity (vs) of a fluid flowing through a porous media is derived from Darcy's velocity. Darcy's velocity does not, however, literally describe the movement of fluid through the porous media. It is simply a statistically convenient product. This is due to one of Darcy's original assumptions that flow occurs over the entire cross-sectional area, thus ignoring the soil particles themselves. To determine the actual speed a fluid flows through a porous media, such as soil, a more accurate representation of the area of flow must be realized. Soil mechanics commonly makes use of a void space to soil solids space ratio. Porosity is defined as the volume of voids per volume of total space;

n = Vv/Vt

Therefore, the seepage velocity of a fluid moving through soil may be expressed as; vs = vd / n

As discussed in the CAP, phytoremediation beds acts as a bioreactor. Based on research and field trials completed by Ecolotree®, 8 days is the target storage/interaction time in the root system "bioreactor" to successfully remediate the COCs. The average groundwater seepage velocity in the down-gradient region of the Phase II portion of the White Street Landfill ranged from 0.008 feet/day to 0.192 feet/day based on the October 2011 gradient calculations (reference Table2). Based on this average groundwater seepage velocity, the 33 foot wide EBuffers installed in Phase II provide approximately 330 days storage/interaction time in the root system "bioreactor" which easily surpassing the 8 day target.

1.3 Contaminant Distribution

The Nature and Extent Report submitted to the NCDENR in August of 2007 documented the exceedance of the 2L standards and/or GPS at Phase II of the White Street Landfill.

As a result of several network compliance monitoring wells containing target constituent concentrations exceeding the established NCAC 2L groundwater standard and/or GPS, Phase II of the White Street Landfill as defined under NCDENR Permit #41-03 installed seven non-network shallow monitoring wells, with one deep monitor well. The wells are designated II-2B, II-7B (deep monitor well), II-9, II-10, II-11, II-12, and II-13.

The nature of impacts to the hydrogeologic regime at the White Street Landfill Facility is primarily from low level volatile organic constituents. However, the metal thallium also exceeded the GPS of $0.28~\mu g/L$ set by NCDENR for thallium at the time the April 2009 Corrective Action Plan was written. However thallium has been removed as a constituent of concern with the approval of NCDENR since thallium has not been detected above the GPS during subsequent groundwater monitoring events.

The lateral extent of contaminant migration away from the landfill is limited by North Buffalo Creek, which truncates the primary component of groundwater flow in the uppermost prevalent aquifer along the northern Facility boundary. This creek is a local

surface water hydraulic boundary and it is expected to be the local discharge point for the uppermost prevalent aquifer; therefore, it represents the primary receptor of impact from constituents migrating away from the landfill. The vertical extent of contaminant migration has been observed to be limited to periodic low level impacts from tetrachloroethene at a concentration close to the NCAC 2L standard in NES well II-7B. Groundwater analytical results for this bedrock aquifer monitoring well report no 2L standard violations during both 2011 semi-annual motoring events.

For the last two years the occurrences of the organic constituents of concern are limited to monitoring wells II-1, II-2, II-2B, II-6, II-7, and II-9. The organic constituents of concern detected in monitoring well II-1 include vinyl chloride, benzene, and 1,4 dichlorobenzene. The organic constituents benzene, 1,1-dichloroethane, trichloroethene, tetrachloroethene, and vinyl chloride have all been detected at monitoring well II-2 with benzene, tetrachloroethene, and vinyl chloride also being detected at monitoring well II-2B. Monitoring well II-7 has shown recent detections of vinyl chloride above its 2L standard. Finally, vinyl chloride has been detected in monitoring well II-9 at reported concentrations above its respective 2L standard.

The occurrences of these volatile organic constituents of concern are defined by the location and vicinity of the above listed monitoring wells as illustrated on Figure 2. For illustrative purposes the lateral extent of these organic constituents of concern are shown on **Figures 4 through 7** which are Contaminant Distribution Maps of each constituent of concern identified and presented in the NCDENR approved Corrective Action Plan. Isoconcentration maps were not prepared due to the absence of groundwater quality data within the source area of the groundwater contamination plume. The monitoring well network is on the periphery of the overall groundwater contaminant plume. Therefore, preparing isoconcentration contours using this data would not accurately represent the entire contaminant plume and would appear to indicate that the source of groundwater contamination was on the distal edge of the plume rather than beneath the waste management units. The down-gradient extent of the organic constituents of concern is limited by North Buffalo Creek, which is the primary receptor of groundwater influenced by the landfill.

It is S&ME's opinion that the presences and distribution of trichloroethene (TCE) and vinyl chloride (VC) are likely related to anaerobic degradation of tetrachloroethene in the decomposing waste. As such, TCE and VC in certain down-gradient compliance wells, likely represent the leading edge of the chlorinated solvent plume within this hydrogeologic regime.

The occurrences of the metal thallium were previously limited to monitoring wells II-1, II-2, II-6, NES Well II-11, and II-12 and is also defined by the location and vicinity of these wells. The down-gradient extent of thallium was defined by North Buffalo Creek which is the primary receptor of groundwater influenced by the landfill. It is important to note that thallium has not been detected above its respective GPS of $0.28\mu g/L$ in any compliance monitoring well for at least four consecutive groundwater monitoring events. Since thallium has not been detected above its GPS in the compliance monitoring wells during subsequent groundwater monitoring events, the need to address thallium through the corrective measures has been nullified as approved by NCDENR.

1.4 Description of Site Conceptual Model

1.4.1 Surface Water Model

When precipitation exceeds infiltration and evaporation, this water begins to collect on the land surface and move by gravity from areas of high topography to areas of lower topography. The natural topography surrounding the waste management units at the Facility is best characterized as gradual to moderately sloping with small drains and small hollows truncating the slopes and feeding the unnamed tributaries of North Buffalo Creek. Surface runoff pathways in the undisturbed areas of the landfill will generally mimic the slope gradients and follow the drains and small hollows to the creek. Overland conveyance methods are expected to include both sheet flow and stream flow. The nearest surface water body to the waste management units is North Buffalo Creek. The shortest distance between any of the waste management units and North Buffalo Creek is between the stream and the northeast corner of the Phase II disposal area near the northeast property boundary. The distance from the stream to the northeast edge of the waste management units of the landfill varies along the waste boundary. This stream will be the primary receptor of surface water runoff from the landfill

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Infiltration and percolation into the upper soil horizon is expected to be moderate due to the sandy loam content within this stratum. Percolation within the waste management units is expected to be minimal since the closed municipal solid waste landfill has been capped with a compacted low permeability clay layer. However, in areas where weathering and erosion may have thinned or removed some of the upper soil horizon, vertical percolation rates may be higher as this soil horizon generally has a greater sand and gravel content. Water that infiltrates the land surface, and which is not lost to evaporation and transpiration ultimately becomes part of the underlying local groundwater aquifer system.

1.4.2 Groundwater Model

The conceptual model for the site hydrogeology is based on models presented by Heath (1982), Heath (1989) and LeGrand (2004). Heath (1989) describes the occurrence of groundwater in the North Caroline Piedmont as a two-part system consisting of regolith overlying fractured, crystalline bedrock. The upper zone, or regolith, consists of an unconsolidated or semi-consolidated mixture of clay fragmental material ranging in size from silt to sand boulders. Water is introduced to the regolith by precipitation and stream flow. Heath describes the regolith as a storage reservoir for the groundwater system and the fractures in bedrock as the conduit. The porosity of the regolith is generally on the order of 20 to 30 percent. Because of its high porosity, the regolith functions as a reservoir which slowly feeds water downward into the bedrock.

The site geology consists of fractured crystalline bedrock overlain by saprolite. The saprolite observed at the Facility has a transitional "regolith" zone that consists of rubbly weathered primary rock with little saprolite. The thickness of this transitional zone is expected to vary across the site.

The uppermost pervasive aquifer at the site is generally within the weathered and metamorphosed granitic gneiss. This "water table" zone is controlled by climactic

factors. Groundwater levels vary seasonally, declining during the summer when atmospheric conditions favor evaporation and plants transpire large amounts of water, and rising during the winter when plants are dormant. Annual groundwater storage in the vicinity of the Landfill Facility is thought to be relatively stable.

As described by LeGrand (2004), the groundwater is expected to move through the regolith into interconnected fractures in bedrock while another component flows through the regolith parallel to the bedrock surface. The transition zone from saprolite to fractured bedrock and the groundwater flow directions are generally expected to mimic topography, but can be influenced by relict structure. The compliance monitoring wells installed in Phase II generally intersect and monitor the saprolite regolith zone directly above bedrock.

The Phase II portion of the White Street Landfill represents an upland area that generally slopes downward to the north toward North Buffalo Creek. The waste management unit is generally located in a recharge area, with recharge limited by the compacted low permeability clay layer landfill cover system. Water percolating through the cover system interacts with waste and generates leachate. Leachate from the waste management unit will percolate at a steep to near vertical angle until it reaches the uppermost prevalent aquifer. Once the leachate containing contaminants of concern (COC) enter the uppermost aquifer, the characteristics of their further migration toward North Buffalo Creek will be governed by the flow paths of groundwater within the aquifer. With North Buffalo Creek a significant local surface water hydraulic boundary, the monitored regolith and bedrock aquifers north of Phase II, are expected to discharges into North Buffalo Creek.

Groundwater quality in the down-gradient region of the landfill is monitored by the existing compliance and NES monitoring well network, placed between the waste management unit and North Buffalo Creek. The closed MSW landfill is believed to be the source of the COCs detected in groundwater. The COC source area(s) beneath the waste are not specifically defined, but they exists further up-gradient along the groundwater flow paths intercepted by the groundwater monitoring wells documented to contain the COCs. It is on this basis that areas of highest COC groundwater concentrations (source areas) are up-gradient of and outside of the monitoring well network; therefore, the dissolved phase groundwater plumes observed represent the outer most or most distal portions of the plume. Furthermore, based on the groundwater geochemistry that can be observed with the existing monitoring well network, non-aqueous phase liquid (NAPL) chlorinated hydrocarbons are not known to exists at the Facility.

1.4.3 Remediation Model

The City of Greensboro has selected phytoremediation coupled with monitored natural attenuation (MNA) to remediate the COCs previously discussed and restore groundwater quality in the Phase II portion of the landfill. NCDENR-DWM permitted the City of Greensboro to move the compliance boundary from it's former location within 250 feet of the Phase II waste management unit to the edge of North Buffalo Creek. This shift in

the official compliance boundary was included in the permit amendment to implement this Corrective Action Plan as well as the revise the Water Quality Monitoring Plan for the Facility. Additionally, according to NCDENR DWM, the phytoremediation beds could be planted within the 50 foot buffer offset from the Facility property boundary which is the center line of North Buffalo Creek.

Phytoremediation

S&ME teamed with Ecolotree® and Dr. Lou Licht to design and implement the phytoremediation system in the Phase II portion of the landfill. The phytoremediation beds areas were chosen based on the distribution of the COCs which are illustrated on Figures 4 through 7 of this Report. Originally, the CAP proposed to install a continuous phytoremediation bed beginning at the mid-point between monitoring wells II-2B and II-13 and continuing west and south to the midpoint between compliance wells II-7B and II-10 as illustrated in S&ME's Phase II Corrective Action Plan dated April 20th, 2009. Additionally, the CAP proposed to install a second continuous phytoremediation bed beginning just northeast of compliance well II-1 and continuing to a point southwest of compliance well II-12. However; as approved by NCDENR, the actual installations of insitu phytoremediation beds were reduced to the locations illustrated on Figures 4 through 7. These changes will be discussed in Section 2.5 of this report.

Hybrid poplar trees and willows are the desired species for phytoremediation systems targeting chlorinated solvents and metals which make up the COCs at the White Street Landfill. In concept, the poplar trees are used to remove certain groundwater pollutants as shallow groundwater pass through a dense root zone below the planted buffer. In essence, the system is a narrow subsurface reactor that acts as a final filter around selected portions of a landfill, capable of reducing the concentrations of certain contaminants in the shallow groundwater, through biological reduction and absorption methods. The trees are planted in beds either directly above the impacted groundwater plume or down-gradient of the source area. The beds are planted perpendicular to the primary direction of groundwater flow. The depth to groundwater in the Phase II portion of the landfill is shallow enough for hybrid poplar trees to effectively uptake the COCs through rhizofiltration. According to Dr. Licht, we should assume an average of 12 gallons of uptake per 7 to 8 linear feet of row, or 12 gallons/day per tree. However, mature hybrid poplar trees that have reached canopy height (40 feet and up) can uptake 30 to 40 gallons per day.

According to Dr. Licht, the phytoremediation bed acts as a bioreactor. The target is 8 days storage/interaction time in the root system "bioreactor" to successfully remediate the COCs. Based on research and field trials completed by Ecolotree®, trees planted in 4 rows with 11 feet of spacing between each row such that the minimum span of the phytoremediation bed is 33 feet wide typically achieves this targeted 8 day storage/interaction time within the root system.

The volatile organic plume in the down-gradient region of Phase II can be divided into 5 distinct zones or Areas of Concern (AOC). These AOCs are based on prior points of non-compliance relative to groundwater quality standards and/or with respect to monitoring wells associated with the phytoremediation beds. The first AOC includes

NES well II-9 and the associated in-situ phytoremediation beds which have collectively been labeled the Northern EBuffer Area. The second AOC includes compliance monitoring well II-1 and the associated in-situ phytoremediation beds which have collectively been labeled the Southern EBuffer Area. The third AOC contains compliance well II-6 and associated Sentinel Monitoring Well SMW-4, the fourth contains compliance wells II-7 and II-7B, and the fifth AOC includes compliance wells II-2 and NES well II-2B and associated Sentinel Monitoring Well SMW-1.

As discussed previously in Section 1.2, the phytoremediation beds target an 8 day storage/interaction time in the root system "bioreactor" to remediate the COCs. The average groundwater seepage velocity in the down-gradient region of the Phase II portion of the White Street Landfill ranged from 0.008 feet/day to 0.192 feet/day based on the October 2011 gradient calculations (reference Table 2). Based on this average groundwater seepage velocity, the 33 foot wide EBuffers installed in Phase II provide approximately 330 days storage/interaction time in the root system "bioreactor" which easily surpasses the 8 day target.

During March 2010 and again in November 2010, S&ME and Ecolotree completed additional site characterization data gathering needed to complete the final design and confirm the planned use of a perimeter deep-rooted phytoremediation system, referred to by Ecolotree as an EBuffer®. On April 3, 2011, S&ME and Ecolotree commenced with the installation of two EBuffer® units along select portion of White Street Landfill, Phase II. One EBuffer® referred to as the North EBuffer® was installed between NES well II-9 and sentinel well SMW-3. The second EBuffer® referred to as the South EBuffer® was installed in the vicinity of compliance well II-1. For complete details of the phytoremediation system reference S&ME's White Street Landfill Installation Report of EBuffer & Sentinel Wells dated September 29, 2011.

The fatal flaw characteristics for a site to impede the success of a phytoremediation system include; wildlife, salinity, over hydration, lack of management, and agronomy (weed control). Phytoremediation beds, particularly in the seedling stage, must be protected from beavers and deer which cut or browse on these plants. If onsite soils are too saline or overly hydrated, hybrid poplars will not survive. It is critical to maintain proper moisture while avoiding over hydration of the tree beds. Since the planting area for the phytoremediation beds at the Facility is an alluvial deposit S&ME considered the potential impacts of clay layers between the sand layers of the alluvium. According to Dr. Licht, clay layers can actually enhance the performance or an in-situ phytoremediation bed by keeping vertical percolation rates from being too rapid. The phytoremediation beds are maintained and the weeds have been kept mowed to prevent weeds and other vegetation from overtaking and choking out the hybrid poplars.

Monitored Natural Attenuation

Natural attenuation processes include biodegradation, dispersion, sorption, and volatilization which influence the fate and transport of chlorinated hydrocarbons in an aquifer system. Monitored Natural Attenuation (MNA) relies on these natural physical, chemical, and biological processes to achieve site-specific cleanup goals within a reasonable period of time. While there is no design involved with MNA, a detailed site

characterization coupled with the collection of evidence that MNA processes are occurring at the Facility, are required to support the remedy. Historic water quality data has generally provided evidence for MNA occurring at the Facility. A more detailed screening process for monitoring the progress of MNA is described in Section 2.2 of this report.

1.5 Regulatory Status

Groundwater exceedances above the 2L Standard in Phase II of the White Street Landfill triggered the Assessment of Corrective Measures process. This process requires Facilities to characterize the nature and extent of the release as well as assess possible remedies to restore groundwater quality at the Facility to levels below the 2L standards, and prepare a Corrective Action Plan (CAP) to implement the appropriate remedy(s) to achieve compliance with the standards.

A Nature and Extent Study, Assessment of Corrective Measures Report, and Corrective Action Plan were completed by S&ME, Inc. on behalf of the City of Greensboro (City) for the White Street Landfill. The CAP was prepared in accordance with 15A NCAC 13B .1636 to implement the City's selected combined remedies of Monitored Natural Attenuation (MNA) coupled with Phytoremediation to restore groundwater quality at Phase II of the White Street Landfill (Facility). The Facility is currently implementing the Corrective Measures process and has installed selected in-situ phytoremediation beds as illustrated on Figures 4 through 7.

2.0 CORRECTIVE ACTION SUMMARY

2.1 Physical Changes in Aquifer Conditions

The physical aquifer conditions have not changed since the CAP was completed and approved by NCDENR.

2.2 Chemical Changes in Aquifer Conditions

In order to assess chemical changes in aquifer conditions, monitor the effectiveness of MNA, and to determine if a reducing environment is present within the hydrogeologic regime within the Phase II portion of the landfill, S&ME has completed four baseline groundwater monitoring events in which MNA indicator parameters were collected from selected groundwater monitoring wells within the plume zone and assessed the collected samples for the following MNA indicator parameters:

- Temperature
- pH
- Oxygen
- Oxidation Reduction Potential (ORP)
- Ferrous Iron
- Dissolved Hydrogen
- Chloride
- Nitrate
- Sulfate

- Sulfide
- Alkalinity
- Total Organic Carbon
- Carbon Dioxide
- Ethane/Ethene
- Methane
- Volatile Fatty Acids
- BTEX
- Trichloroethene
- Dichloroethene
- Vinyl Chloride
- 1,1,1 Trichloroethane
- Chloroethane

As a remedial strategy for chlorinated solvent-contaminated groundwater, natural attenuation with an emphasis on biodegradation requires that favorable microbiological and environmental conditions exist at a site; these generally include the presence of dehalorespirators capable of biodegrading the target compounds, suitable concentrations of electron donor (dissolved hydrogen or organic compounds which via fermentation generate dissolved hydrogen), a favorable oxidation-reduction potential, an organic carbon source, vitamins and nutrients, and an appropriate pH, and temperature. Deficiencies in any of these conditions may result in either no dechlorination activity or partial dechlorination at a site thereby limiting the implementation of natural attenuation as a feasible remedial option. In order to evaluate if natural attenuation processes are occurring at a site, detailed groundwater characterization is required in support of MNA approval. Some positive indicators for reductive dechlorination are:

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- The presence of PCE daughter compounds.
- Elevated chloride concentration (>2 times background).
- Methane, ferrous iron (> 1 mg/L), and sulfide (> 1 mg/L) production.
- Dissolved hydrogen concentration greater that 1 nM.
- Low dissolved oxygen concentration (< 0.5 mg/L).
- Low oxidation-reduction potential (< 50 mV).

The primary objective of the natural attenuation investigation is to determine whether natural processes will be capable of attaining site-specific remediation objectives in a time period that is reasonable compared to other alternatives. Further, natural attenuation should be evaluated to determine if it can meet all appropriate Federal and State remediation objectives for a given site. This requires that projections of the potential extent of the contaminant plume in time and space be made. These projections should be based on historic variations in contaminant concentration, and the current extent and concentrations of contaminants in the plume in conjunction with measured rates of contaminant attenuation.

According to U.S. Environmental Protection Agency (EPA), Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater (1998) chlorinated solvent plumes can exhibit three types of behavior depending on the amount

of solvent, the amount of biologically available organic carbon in the aquifer, the distribution and concentration of natural electron acceptors, and the types of electron acceptors being used. Individual plumes may exhibit all three types of behavior in different portions of the plume. The different types of plume behavior are summarized

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Type 1 Behavior

below.

Type 1 behavior occurs where the primary substrate is anthropogenic carbon (e.g., BTEX or landfill leachate), and microbial degradation of this anthropogenic carbon drives reductive dechlorination. When evaluating natural attenuation of a plume exhibiting Type 1 behavior, the following questions must be answered:

- 1) Is the electron donor supply adequate to allow microbial reduction of the chlorinated organic compounds? In other words, will the microorganisms "strangle" before they "starve" (i.e., will they run out of chlorinated aliphatic hydrocarbons used as electron acceptors before they run out of anthropogenic carbon used as the primary substrate)?
- 2) What is the role of competing electron acceptors (e.g., dissolved oxygen, nitrate, iron (III) and sulfate)?
- 3) Is VC oxidized, or is it reduced? Type 1 behavior results in the rapid and extensive degradation of the more highly-chlorinated solvents such as PCE, TCE, and DCE.

Type 2 Behavior

Type 2 behavior dominates in areas that are characterized by relatively high concentrations of biologically available native organic carbon. Microbial utilization of this natural carbon source drives reductive dechlorination (i.e., it is the primary substrate for microorganism growth). When evaluating natural attenuation of a Type 2 chlorinated solvent plume, the same questions as those posed in the description of Type 1 behavior must be answered. Type 2 behavior generally results in slower biodegradation of the highly chlorinated solvents than Type 1 behavior, but under the right conditions (e.g., areas with high natural organic carbon contents), this type of behavior also can result in rapid degradation of these compounds.

Type 3 Behavior

Type 3 behavior dominates in areas that are characterized by inadequate concentrations of native and/or anthropogenic carbon, and concentrations of dissolved oxygen that are greater than 1.0 mg/L. Under these aerobic conditions, reductive dechlorination will not occur. The most significant natural attenuation mechanisms for PCE, TCE, and DCE will be advection, dispersion, and sorption. However, VC can be rapidly oxidized under these conditions. Type 3 behavior also occurs in ground water that does not contain microbes capable of biodegradation of chlorinated solvents.

Mixed Behavior

As mentioned above, a single chlorinated solvent plume can exhibit all three types of behavior in different portions of the plume. This can be beneficial for natural biodegradation of chlorinated aliphatic hydrocarbon plumes. The most fortuitous scenario

involves a plume in which PCE, TCE, and DCE are reductively dechlorinated with accumulation of VC near the source area (Type 1 or Type 2 behavior), then VC is oxidized (Type 3 behavior), either aerobically or via iron reduction further downgradient. Vinyl chloride is oxidized to carbon dioxide in this type of plume and does not accumulate. The following sequence of reactions occurs in a plume that exhibits this type of mixed behavior.

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PCE→TCE→DCE→VC→Carbon Dioxide

In general, TCE, DCE, and VC may attenuate at approximately the same rate, and thus these reactions may be confused with simple dilution. Note that no ethene is produced during this reaction. Vinyl chloride is removed from the system much faster under these conditions than it is under VC reducing conditions. A less desirable scenario, but one in which all contaminants may be entirely biodegraded, involves a plume in which all chlorinated aliphatic hydrocarbons are reductively dechlorinated via Type 1 or Type 2 behavior. Vinyl chloride is reduced to ethene, which may be further reduced to ethane or methane. The following sequence of reactions occurs in this type of plume.

$PCE \rightarrow TCE \rightarrow DCE \rightarrow VC \rightarrow Ethene \rightarrow Ethane$

This sequence has been investigated by Freedman and Gossett (1989). In this type of plume, VC degrades more slowly than TCE, and thus tends to accumulate.

2.2.1 Bioattenuation Screening Process

An accurate assessment of the potential for natural biodegradation of chlorinated compounds should be made before investing in a detailed study of natural attenuation. EPA has developed analytical screening criteria for MNA indicator parameters. For most of the chlorinated solvents, the initial biotransformation in the environment is a reductive dechlorination. The initial screening process is designed to recognize geochemical environments where reductive dechlorination is plausible. It is recognized, however, that biodegradation of certain halogenated compounds can also proceed via oxidative pathways. Examples include DCE, VC, the dichloroethanes, chloroethane, dichlorobenzenes, monochlorobenzene, methylene chloride, and ethylene dibromide. The following information is required for the screening process:

- The chemical and geochemical data presented in Table 2.1 of for background and target areas of the plume
- Locations of source(s) and potential points of exposure. If subsurface NAPLs are sources, estimate extent of residual and free-phase NAPL.
- An estimate of the transport velocity and direction of ground-water flow.

Table 2.1 Analytical Parameters and Weighting for Preliminary Screening of Anaerobic Biodegradation Processes

Anaerobic Biode Analysis						
J DED	Contaminated Zone		Value			
Oxygen*	<0.5 mg/L	Tolerated, suppresses the reductive	3			
Oxygen	CO.S HIG/E	pathway at higher concentrations				
Oxygen*	>5 mg/L	Not tolerated; however, VC may be oxidized aerobically	-3			
Nitrate*	<1 mg/L	At higher concentrations may compete with reductive pathway	2			
Iron II*	>1 mg/L	Reductive pathway possible; VC may be oxidized under Fe(III)- reducing conditions	3			
Sulfate*	<20 mg/L	At higher concentrations may compete with reductive pathway	2			
Sulfide*	>1 mg/L	Reductive pathway possible	3			
Methane*	<0.5 mg/L >0.5 mg/L	VC oxidizes Ultimate reductive daughter product, VC Accumulates	0 3			
Oxidation Reduction Potential* (ORP) against Ag/AgCI electrode	<50 millivolts (mV) <-100mV	Reductive pathway possible Reductive pathway likely	1 2			
pH*	5 < pH < 9 5 > pH >9	Optimal range for reductive pathway Outside optimal range for reductive pathway				
TOC	> 20 mg/L	Carbon and energy source; drives dechlorination; can be natural or anthropogenic	2			
Temperature*	> 20°C	At T >20 _o C biochemical process is accelerated	1			
Carbon Dioxide	>2x background	Ultimate oxidative daughter product	1			
Alkalinity	>2x background	Results from interaction between CO ₂ and aquifer minerals	1			
Chloride*	>2x background	Daughter product of organic chlorine	2			
Hydrogen	>1 nM	Reductive pathway possible, VC may accumulate	3			
Hydrogen	<1 nM	VC oxidized	0			
Volatile Fatty Acids	> 0.1 mg/L	Intermediates resulting from biodegradation of more complex compounds; carbon and energy source	2			
BTEX*	> 0.1 mg/L	Carbon and energy source; drives dechlorination	2			
Tetrachloroethene		Material released	0			
Trichloroethene*		Material released Daughter product of PCE	0 2a/			
DCE*		Material released	0			
		Daughter product of TCE If cis is > 80% of total DCE it is likely a daughter product 1,1-DCE can be chemical reaction product of TCA	2a/			
VC*		Material released Daughter product of DCE	0 2a/			
1,1,1- Trichloroethane*		Material released	0			
DCA		Daughter product of TCA under reducing conditions	2			

Carbon		Material released	0
Tetrachloride			
Chloroethane*		Daughter product of DCA or VC under	2
		reducing conditions	
Ethene/Ethane	>0.01mg/L	Daughter product of VC/ethene	2
	>0.1 mg/L		3
Chloroform		Material released	0
		Daughter product of Carbon	2
		Tetrachloride	
Dichloromethane		Material released	0
		Daughter product of Chloroform	2

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Once these data have been collected, the screening process can be undertaken. The following steps summarize the screening processes:

- 1) Determine if biodegradation is occurring using geochemical data. If biodegradation is occurring, locate source(s) and potential points of exposure. If it is not, assess the amount and types of data available. If data are insufficient to determine if biodegradation is occurring, collect supplemental data.
- 2) Determine ground-water flow and solute transport parameters from representative field data. Dispersivity and porosity may be estimated from literature but the hydraulic conductivity and the ground-water gradient and flow direction must be determined from field data. The investigator should use the highest valid hydraulic conductivity measured at the site during the preliminary screening because solute plumes tend to follow the path of least resistance (i.e., highest hydraulic conductivity). This will give the "worst-case" estimate of the solute migration distance over a given period of time. Compare this "worst-case" estimate with the rate of plume migration determined from site characterization data. Determine what degree of plume migration is accepable or unacceptable with respect to site-specific remediation objectives.
- 3) Locate source(s) and potential points of exposure. If subsurface NAPLs are sources, estimate extent of residual and free-phase NAPL.
- 4) Estimate the biodegradation rate constant. Biodegradation rate constants can be estimated using a conservative tracer found commingled with the contaminant plume. When dealing with a plume that contains chlorinated solvents, this procedure can be modified to use chloride as a tracer. Rate constants derived from microcosm studies can also be used when site specific field data are inadequate or inconclusive. If it is not possible to estimate the biodegradation rate using these procedures, then use a range of accepted literature values for biodegradation of the contaminants of concern. Although literature values may be used to estimate biodegradation rates in the bioattenuation screening process, literature values should not be used in the later more detailed analysis of natural attenuation.
- 5) Compare the rate of transport to the rate of attenuation. Use analytical solutions or a screening model such as BIOSCREEN.

^{*} Required analysis. a/ Points awarded only if it can be shown that the compound is a daughter product (i.e., not a constituent of the source NAPL)

6) Determine if screening criteria are met.

Step 1: Determine if Biodegradation is Occurring

The first step in the screening process is to sample or use existing data and analyze them for the parameters listed in Table 2.1 The sampled areas should include (1) the most contaminated portion of the aquifer (generally in the "source" area with NAPL or high concentrations of contaminants in ground water; (2) down-gradient from the source area but still in the dissolved contaminant plume; (3) down-gradient from the dissolved contaminant plume; and (4) up-gradient and lateral locations that are not impacted by the plume.

The samples collected in the NAPL source area provide information as to the predominant terminal electron-accepting process at the source area. In conjunction with the sample collected in the NAPL source zone, samples collected in the dissolved plume down-gradient from the NAPL source zone allow the investigator (1) to determine if the plume is degrading with distance along the flow path and (2) to determine the distribution of electron acceptors and donors and metabolic by-products along the flow path. The sample collected down-gradient from the dissolved plume aids in plume delineation and allows the investigator to determine if metabolic byproducts are present in an area of ground water that has been remediated. The up-gradient and lateral samples allow delineation of the plume and determination of background concentrations of the electron acceptors and donors.

After these samples have been analyzed for the parameters listed in Table 2.1, the data are analyzed to determine if biodegradation is occurring. The right-hand column of Table 2.1 contains scoring values that can be used as a test to assess the likelihood that biodegradation is occurring. This method relies on the fact that biodegradation will cause predictable changes in ground water chemistry. For example, if the dissolved oxygen concentration in the area of the plume with the highest contaminant concentration is less than 0.5 milligrams per liter (mg/L), 3 points are awarded. Table 2.2 summarizes the range of possible scores and gives an interpretation for each score. If the score totals 15 or more points, it is likely that biodegradation is occurring.

Table 2.2 Interpretation of Points Awarded During Screening Step 1

Score	Interpretation
0 to 5	Inadequate evidence for anaerobic biodegradation* of chlorinated organics
6 to 14	Limited evidence for anaerobic biodegradation* of chlorinated organics
15 to 20	Adequate evidence for anaerobic biodegradation* of chlorinated organics
> 20	Strong evidence for anaerobic biodegradation* of chlorinated organics

^{*}reductive dechlorination

For this initial CAER for the Facility, S&ME has completed Step 1 of the screening process. In order to complete this step, a series of five background groundwater monitoring events from selected wells. Since the "source" area is believed to be beneath the landfill CAP, and giving consideration to the relatively low dissolved phase concentrations of the COCs and the limited lengths of the exposed portions of the

dissolved phase plumes, the collection of samples from the most contaminated portion of the aquifer (the "source" area) and the near source dissolved phase contaminant plume was not practical. The screening process samples were collected from the areas downgradient from each source area; and from an up-gradient location that is not impacted by the plume. Monitoring wells II-1, II-2, II-2B, II-7, and II-9 represent the areas downgradient of the most contaminated portion of the aquifer. Monitoring well II-7B represent groundwater quality in the deeper bedrock aquifer, overlain by and interconnected with the shallow aquifer at monitoring well II-7. Monitoring well MW-14 serves as the Facility's background well and represents an up-gradient location not impacted by the plume. A preliminary MNA screen sampling event was conducted during April 2007, prior to CAP preparation. The four post-CAP groundwater sampling events were conducted in October 2009, January 2010, April 2010, and July 2010.

Each of the samples collected from the above listed wells during the four post-CAP background groundwater monitoring events were analyzed for the MNA Indicator parameters listed in Table 2.1. The results are illustrated on **Tables 3** through **9**. Based on the points awarded as part of this screening process, there is adequate evidence for anaerobic biodegradation of chlorinated organics at monitoring wells II-1, II-2, II-2B, and II-9. The preliminary screening scores for these wells are likely overly conservative since point were not awarded for the presences of trichloroethene, dichloroethene, and vinyl chloride as biodegradation process daughter products. Giving needed consideration to the portions of the overall dissolved phase groundwater plumes examined by this screening process, it is our opinion that a finding of "adequate evidence for anaerobic biodegradation" supports the use of MNA as an appropriate corrective measure.

The screening process score indicates limited evidence of anaerobic biodegradation at well II-7 and inadequate to limited evidence for anaerobic biodegradation of chlorinated organics in wells II-7B. The point system scores for wells II-7 and II-7B must be considered in light of the current dissolved phase plume position. Recent analytical results for these monitoring wells indicate compliance with 2L standards. Shallow aquifer well II-7 represent groundwater quality down-gradient of the dissolved phase plume, an area not expected to exhibit groundwater chemistry indicating strong evidence for anaerobic biodegradation. As discuss in the Groundwater Model in Section 1.4.2, with the shallow regolith aquifer acting as a reservoir slowly feeding water downward into the bedrock aquifer, as the shallow aquifer impacts attenuate, one could expect the deeper bedrock impacts to attenuate as well. The improvement in groundwater quality measured at bedrock monitoring well II-7B, support this model. Consideration was also given to the historical analytical results from compliance well II-7 which exhibit a decreasing trend in the concentrations of PCE and TCE over time, while vinyl chloride, a daughter product from the biodegradation of PCE, was later first detected in well II-7 during 2007. These trends are indicative of reductive dechlorination at or up-gradient of well II-7. It is possible that adequate anaerobic biodegradation conditions exist upgradient of well II-7 and they are responsible for the observed trend of decreasing PCE and TCE concentrations.

Due to the limited accessibility to the entire contaminant plume for monitoring and screening the natural attenuation processes, it is difficult to determine which of the EPA's three plume behavior types are exhibited. Overall plume behavior is predicted to include

a mixture of all three types. The exposed down-gradient portion of these plumes, monitored by this screening process, are thought to predominantly exhibit Type 3 Behavior for reductive dechlorination.

EPA's analytical screening method for MNA also includes examining certain aquifer and solute transport parameters to predict worse-case plume migration, assessing the potential sources including DNAPL, estimate biodegradation rates, and then analyzing the site specific conditions using an analytical model such as BIOSCREEN.

EPA's screening process is base on a plume from a single point source, and requires the collection of data from multiple points along a flow path, starting in the source area, moving through the core of the plume, and further down-gradient to points at and beyond the leading edge. Groundwater monitoring wells have not been required to be installed directly beneath the Phase II waste management unit; therefore, groundwater quality data from the source area and mid-points along the plume length, needed to conduct and calibrate a proper solute transport model, are not available. It is on this basis that a solute transport model was not prepared, as described in step 2 above of the screening process. Additionally, the rate of plume migration has been adequately determined based on existing seepage velocity data, the dissolved phase plume appears to be stable if not shrinking, and the plume is being adequately remediated prior to intercepting the primary receptor which is Buffalo Creek based on groundwater quality data from the sentinel monitoring wells. Therefore, the degree of plume migration is acceptable with respect to the remediation objectives.

The limited number of points along the plume flow paths, inhibit determining a biodegradation rate constant as suggested in step 4 of the screening process. This condition limits the effective use of either isopleths maps or tracer. As additional COC and MNA indicator data are accumulated as monitoring continues, it may be possible to predict the actual biodegradation rate within the contaminant plume. Literature values for the COCs may also be considered and used in future analyses and reports.

A BIOSCREEN model, such as suggested in step 5 of the screening process has not been prepared. BIOSCREEN modeling requires multiple monitoring points downgradient of the point source of the plume to monitor COC concentrations along the entire flow path starting at the source and migrating down-gradient. The narrow monitored area between the waste management unit and Buffalo Creek is believed to represent only the periphery of the groundwater plume. As discussed earlier, groundwater quality data from the source(s) of the plume and multiple points along the plume flow path have not been obtained; therefore, BIOSCREEN modeling is not practical given these limitations.

Reference <u>EPA's Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater</u>, EPA, September 1998, as well as <u>Evaluation of Enhanced Bioremediation for Reductive Dechlorination of Tetrachloroethene (PCE) Microcosm Study</u>, Felix Y Wang, Virginia Polytechnic Institute and State University, May 2000.

2.3 Physical Changes in Plume Characteristics

In order to control and reduce the release of the constituents of concern from the Phase II waste management unit at the Facility, a low permeability clay cap was added to the top of the waste management unit in 1998. Low permeability caps reduce landfill mass by reducing vertical percolation of rain water into the waste mass through leaching.

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In addition to the low permeability clay CAP, the Facility installed an active decomposition methane gas extraction system in 1998. Decomposition gases can directly affect groundwater quality through interaction of the decomposition gas with the upper most prevalent aquifer. Contaminants contained within the decomposition gas can transfer to the monitored aquifer via phase transfer during interaction of gases and liquids. It appears that controlling decomposition gas levels at the Facility has reduced reported concentrations of the COCs in groundwater monitoring events post installation and activation of the active gas extraction system.

Additionally, the active gas extraction wells are de-watered for leachate on an as-needed basis, to maximize the effectiveness of the active gas extraction system. The active dewatering of leachate from the active gas extraction wells appears to have directly reduced the mass of contaminants of concern entering the down-gradient portion of the hydrogeologic regime in Phase II, as well as the overall mass of the contaminant plume as evidenced by a reduction in concentrations of the COCs in the down-gradient compliance monitoring wells observed during the routine compliance monitoring events.

Monitored Natural Attenuation will not change the physical plume characteristics. Once fully established, each EBuffer® is anticipated to remove a sufficient volume of shallow groundwater to influence shallow groundwater flow, resulting in some degree of groundwater upwelling. This theoretical change would enhance the remediation of shallow groundwater migrating from the beneath the waste management unit, and ultimately upwelling and discharging into the adjacent North Buffalo Creek.

2.4 Chemical Changes in Plume Characteristics

As discussed in Section 1.4.3 above, the volatile organic plume in the down-gradient region of Phase II is naturally divided into 5 distinct zones or Areas of Concern (AOC). These AOCs are based on prior points of non-compliance relative to groundwater quality standards and/or with respect to monitoring wells associated with the phytoremediation beds.

The following discussion briefly discusses the most recent groundwater analytical data collected from these AOCs.

Northern EBuffer® Area

Historically, vinyl chloride has been detected in NES well II-9. Sentinel well SMW-3 was installed down-gradient of well II-9, at point near the compliance boundary, and just prior to North Buffalo Creek. As summarized in **Table 10**, vinyl chloride was detected at sentinel well SMW-3 during August and October 2010 at reported concentrations which

exceed the corresponding 2L Standard for vinyl chloride. This monitoring data represents groundwater quality prior to the installation of the corresponding phytoremediation buffer; hereafter, referred to as the Northern EBuffer®. However, vinyl chloride was not detected above the laboratory reporting limit in SMW-3 during the most recent sampling event conducted on October 7, 2011 which represents groundwater quality in this AOC post installation of the corresponding phytoremediation buffer. Additional groundwater quality data is needed to confirm if this dissolved phase contaminant plume is increasing, decreasing, or stable.

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Southern EBuffer® Area

As defined in the CAP, due to the proximity of compliance well II-1 to Buffalo Creek, this former compliance well shall functions as the sentinel well for this area of the landfill. The CAP identified vinyl chloride, 1,4-dichlorobenzene, and thallium as the constituents of concern at monitor well II-1. During the April and October 2010 monitoring events, benzene, vinyl chloride and 1,4-dichlorobenzene were detected at II-1 at concentrations greater than the corresponding 2L Standard of 6 μ g/L. Thallium was not detected above laboratory detection limits.

Benzene was not originally listed as constituent of concern at well II-1 in the CAP; however, it was detected during the April and October 2010 monitoring events at concentrations greater than the corresponding 2L Standard of 1.0 µg/L. This monitoring data represents groundwater quality prior to the installation of the Southern Ebuffer®. However, during the subsequent May 2011 and October 2011 groundwater monitoring events, only 1,4-dichlorobenzene was detected at a reported concentration above the 2L Standard. The May 2011 data represents groundwater quality post installation of the Southern EBuffer. Based on analytical results obtained during routine semi-annual monitoring event, the contaminant plume appears to be stable, with indication of a reducing or shrinking plume suggested.

Area of Concern (AOC) - Well II-6

Compliance well II-6 is located between the waste boundary and the review boundary; up-gradient of sentinel well SMW-4. The CAP identified thallium as a constituent of concern at compliance well II-6; however, it had not been detected at II-6 since April 2006. More recently benzene has been detected periodically at well II-6 at concentrations exceeding the 2L Standard. Based on analytical results obtained during routine semi-annual monitoring event, the dissolved phase volatile organic compound plume appears to be stable.

Sentinel monitoring well SMW-4 is located down-gradient of well II-6, at a point prior to the Compliance Boundary. During the 2010 and 2011 monitoring events, no target analytes were detected at well SMW-4 with concentrations exceeding the corresponding 2L Standard or GPS. This finding suggests that the CAP specified remediation goals were achieved for this area, represented by sentinel well SMW-4.

Area of Concern (AOC) - Well II-7

Tetrachloroethene and vinyl chloride are the CAP listed constituents of concern at the upgradient compliance monitor well II-7. Based on analytical results obtained during

routine semi-annual monitoring event, the dissolved phase volatile organic compound plume monitored by well II-7 has been declining for years. During the April 10, 2010 sampling event, vinvl chloride was estimated at a concentration of 0.80 µg/L, above the corresponding 2L Standard of 0.03 µg/L; however, it was not detected during the October 2010, May 2011, or October 2011 monitoring events. Tetrachloroethene was listed as the constituent of concern at NES well II-7B; however, it was not detected above the 2L Standard during the April and October 2010, or the May and October 2011 monitoring events. This finding suggests that the CAP specified remediation goals have been achieved for this area, a finding that further supports the Facility's February 2010 request to suspend the installation of the CAP specified phytoremediation buffer in this former area of concern.

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Area of Concern (AOC) – Well II-2

Benzene, trichloroethene, tetrachloroethene, vinyl chloride, and thallium were constituents of concern in compliance well II-2. As summarized in Table 10, compliance well II-2 had detections of 1,1-dichloroethane, benzene, trichloroethene, tetrachloroethene, and vinyl chloride at concentrations above their corresponding 2L Standards.

Sentinel well SMW-1 was installed down-gradient of compliance well II-2. As summarized in Table 10, groundwater analytical results for well SMW-1 report no targeted Appendix I volatile organic compounds at concentrations exceeding the 2L Standards. This finding suggests that the CAP specified remediation goals have been achieved for this area, a finding that further supports the Facility's February 2010 request to suspend the installation of the CAP specified phytoremediation buffer in this former area of concern.

Cadmium was reported in well SMW-1 at a concentration of 4.79 µg/L during the October 1, 2010 sampling event. This concentration exceeds the NCAC 2L standard of 2 ug/l. The reported non-detection of cadmium up-gradient of SMW-1 at compliance well II-2 during the April 2010, October 2010, and May 2011 monitoring events, suggests that the landfill may not be source of this constituent. Considering the absence of an established landfill source for the cadmium detected at SMW-1, the October 1, 2010 detection of cadmium is thought to be an anomaly potentially associated with suspended solids in water column.

Laboratory analytical results for the October 2011 sentinel monitoring wells are attached in Appendix I. Laboratory analytical reports results summarized herein for wells II-2, II-6, II-7, II-7B, and II-9 were submitted as part of the routine monitoring.

2.5 **Refining the Site Conceptual Model**

Since the preparation of the CAP, no physical changes in groundwater flow regime have been observed. However, certain beneficial chemical changes to the dissolved groundwater plumes have been documented.

The original CAP prepared in July of 2008 called for the installation of a continuous phytoremediation bed beginning at the mid-point between monitoring wells II-2B and II-13 and continuing west and south to the midpoint between compliance wells II-7B and II-10 as illustrated on Figure 7 of previously submitted White Street Landfill Corrective Action Plan, S&ME, Inc., July 2008, revised April 30, 2009. Additionally, the CAP also proposed to install a second continuous phytoremediation bed beginning just northeast of compliance well II-1 and continuing to a point southwest of compliance well II-12 as illustrated on Figure 7 of the previously submitted CAP.

Subsequent to the completion and approval of the CAP additional groundwater quality data was obtained, which demonstrated a reduction in the CAP listed constituents of concern and projecting a potential for achieving groundwater quality compliance near term at select compliance points without implementation of additional corrective measures. On February 3, 2010 S&ME submitted a Request to Suspend Construction of Select Phytoremediation Beds (Amendment to Corrective Action Plan) to NCDENR. The request included:

- 1. Elimination of thallium as a current COCs requiring corrective measure, thereby, eliminating the need to construct phytoremediation beds at locations associated with wells II-6, II-11, and II-12.
- 2. Installing sentinel well SMW-4 and assessing groundwater quality prior to the installation of the phytoremediation bed associated with well II-6. Considering the close proximity of compliance well II-6 to the waste boundary, if groundwater quality at SMW-4 documented compliant conditions, installation of the phytoremediation bed associated with well II-6 would be postponed until required by regulation.
- 3. Suspending the installation of phytoremediation beds in the area of well II-7 based the concentrations of COCs at monitoring well II-7 and the minute degree of separation between the current COC concentrations and the corresponding 2L Standards. The CAP approved MNA program would be implemented at II-7.

On April 29, 2010, NCDENR approved the requested suspension of the installation of sentinel monitoring wells SMW-2 and SMW-5 and the certain Phytoremediation Beds.

For the revised CAP implementation, three new sentinel monitoring wells were installed down-gradient of each of the compliance and former NES monitoring well in which current COCs have been detected at concentrations exceeding the 2L Standard.

Between July 8 and 9, 2010, sentinel monitoring wells SMW-1, SMW-3, and SMW-4 were installed down-gradient of monitored unit Phase II, prior to North Buffalo Creek, and prior to the Compliance Boundary. Sentinel well SMW-1 was installed down-gradient of compliance well II-2, SMW-3 was installed down-gradient of NES well II-9, and SMW-4 was installed down-gradient of compliance well II-6. These wells will serve to monitor groundwater quality after interaction with the phytoremediation beds and/or prior to groundwater discharging to North Buffalo Creek. The wells monitor the same portion of the uppermost aquifer as the affected compliance or NES wells up-gradient of their location. The locations of the sentinel monitoring wells are illustrated on Figures 4 through 7. The installations of these wells are discussed in detail in the White Street

<u>Landfill Installation Report, Ebuffer and Sentinel Wells</u> prepared by S&ME dated September 29, 2011.

On April 3, 2011, S&ME and Ecolotree commenced with the installation of two EBuffer® units along select portion of White Street Landfill, Phase II. One EBuffer® referred to as the North EBuffer® as installed between NES well II-9 and sentinel well SMW-3. The second EBuffer® referred to as the South EBuffer® was installed in the vicinity of compliance well II-1. Figures 4 through 7 depict the EBuffer® locations and the locations for groundwater monitoring wells.

No other changes to the site conceptual model have been made to the NCDENR approved CAP.

2.6 Status of Impacts at the Potential Points of Compliance

Several organic compounds including the volatile organic compounds benzene, trichloroethene, tetrachloroethene, vinyl chloride, 1,1-dichloroethene, and 1,4-dichlorobenzene as well as the inorganic constituent thallium have exceeded the 2L standards and/or the North Carolina Department of Environment and Natural Resources (NCDENR) Groundwater Protection Standards (GPS) within the Phase II portion of the White Street Landfill compliance monitoring well network. In December 2010, 15A NCAC 2L groundwater quality standards were revised to incorporate new Interim Maximum Allowable Concentrations (IMACs) for select parameters. The solid waste section adopted the IMACs as their current groundwater protection standards (GPS). Since promulgation of the new IMACs, the inorganic constituents cobalt and vanadium have exceeded their respective IMAC.

During 2007, S&ME completed an Alternate Source Demonstration (ASD) for metals. The results of the ASD successfully demonstrated that the concentrations of several naturally-occurring metals including cobalt and vanadium within the in-situ soil at the Facility were sufficient to influence the concentrations of these metals in groundwater samples collected from the down-gradient groundwater monitoring wells. Based on the ASD findings, the reporting of cobalt and vanadium at concentrations above their respective 15A NCAC 2L IMAC standards is not due to a release by the Facility, but instead may be the result of the natural occurrence of these metals in the native, residual soil. Based on the ASD findings the concentrations of cobalt and vanadium reported herein are thought to reflect naturally occurring conditions, and thus should not be considered an exceedance of the 15A NCAC 2L standards (2L Standards) and therefore, triggering the need for corrective measures.

Thallium, which was originally a COC in certain down-gradient compliance monitoring wells, has not been detected above the 2L Standard in any compliance monitoring well since April 2007, and therefore thallium is no longer considered a COC.

The following provides a brief discussion of the analytical results for each sentinel well and each area of concern as identified in the CAP and/or the phytoremediation beds discussed in Section 2.4.

Recent groundwater monitoring events indicate that the VOC plume remains in the vicinity of the Northern EBuffer and Southern EBuffer Areas in the vicinity of wells II-1 and NES well II-9. In order to restore groundwater quality in these AOCs and in accordance with the NCDENR approved CAP, S&ME installed two in-situ phytoremediation beds, one in each of these AOCs as illustrated on Figures 4 through 7 of this report. The installation of these beds were performed in accordance with the approved CAP and were documented in the White Street Landfill Installation Report, Ebuffer and Sentinel Wells prepared by S&ME dated September 29, 2011.

Sentinel monitoring well SMW-3 was installed down-gradient of NES well II-9 and its associated EBuffer®. Groundwater samples were collected from SMW-3 on August 2, 2010, October 11, 2010, and October 7, 2011. The most recent October 7, 2011 results show that none of the targeted compliance parameters exceed their respective 2L Standards in SMW-3.

Additionally, The VOC plume remains in the AOCs in vicinity of wells II-6, II-7, and II-7B. S&ME installed Sentinel Monitoring Well SMW-4 down-gradient of well II-6 between this wells and the compliance boundary in Buffalo Creek. Groundwater samples were also collected from SMW-4 on August 2, 2010, October 11, 2010, and October 7, 2011. The results of these groundwater sampling events show that none of the targeted compliance parameters or COCs were detected above the laboratory reporting limit in SMW-1. Additionally, at wells II-7 and II-7B representing the remaining AOC within the VOC plume, the only COC detected above the 2L Standard during the four most recent groundwater monitoring events was vinyl chloride which was reported at an estimated "J" flagged concentration of 0.80 μ g/L during the April 1, 2010 monitoring event. Since April 2010, no volatile organic compounds have been detected in wells II-7 or II-7B at reported concentrations above the 2L Standards. The plume mass in the vicinity of wells II-7 and II-7B has been dramatically reduced.

The VOC plume also remains in the AOC which occurred in vicinity of wells II-2 and NES well II-2B. In order to monitor migration of the COCs in this AOC, S&ME installed Sentinel Monitoring Well SMW-1 down-gradient of these wells between these wells and the compliance boundary in Buffalo Creek. Groundwater samples were collected from SMW-1 on August 2, 2010, October 11, 2010, and October 7, 2011. The results of these groundwater sampling events show that none of the targeted compliance parameters or COCs exceed their respective 2L Standards in SMW-1.

Based on these results, the COCs identified within the compliance monitoring wells are not exceeded the 2L Standards at the compliance monitoring points which are represented by the recently installed sentinel monitoring wells SMW-1, SMW-3, and SMW-4.

2.7 Offsite Migration of COCs

As part of the previously submitted Nature and Extent Study, S&ME completed a drinking water receptor survey to visually look for evidence of drinking water wells within a quarter mile radius of the compliance monitoring wells in which groundwater impact has been detected. This visual survey was completed from a vehicle traveling along public roads and right-of-ways within the quarter mile radius.

The results of our survey show that there are five (5) drinking water wells within a quarter mile radius of the impacted compliance monitoring wells II-2 and II-7. The drinking water wells were identified on the opposite side of North Buffalo Creek from the landfill and are at a topographically higher elevation than the landfill. North Buffalo Creek is a local hydraulic divide for the uppermost prevalent aquifer

Based on these findings and the distance of the wells from the compliance wells showing impacts, the risk to these drinking water wells from the constituents of concern from the landfill is expected to be low. A map showing the locations of the identified drinking water wells within a quarter mile radius of compliance wells II-2 and II-7 was included in the previously submitted CAP.

North Buffalo Creek is the primary receptor of groundwater influenced by the Facility. North Buffalo Creek is classified as a Class C stream by NC DENR. There are no known public water outtakes from North Buffalo Creek within a 1 mile radius of the White Street Landfill. There is, however, as waste water treatment plant located immediately upstream of the Facility.

While a formal benthic study of the section of North Buffalo Creek influenced by the White Street Landfill has not been completed, the risk, if any, associated with the release of the primary constituents of concern (COCs) from the Facility will be to the aquatic life in North Buffalo Creek.

The Facility has historically, and currently does, monitored surface water quality upstream as well as downstream of the landfill. Based upon the surface water quality monitoring results, there have been no exceedances of the 15A NCAC 2B surface water standards for any of the COCs in the portion of North Buffalo Creek influenced by the Facility. Therefore, the risk to aquatic life in North Buffalo Creek from discharging groundwater influenced by the Facility is expected to be low.

3.0 CONCLUSIONS

3.1 Modifications to Selected Remedy

Based on the groundwater monitoring results complied from the Sentinel Monitoring wells, the Facility is in compliance at the NCDENR approved compliance monitoring points which are represented by Sentinel Monitoring Well SMW-1, SMW-3, and SMW-4. Therefore, no changes to the selected remedy are needed to address these former CAP areas of concern.

Overall, groundwater quality has shown improvement in Phase II. This report finds that there is adequate evidence to support the continued application of MNA in the areas investigated and covered by the CAP. The remaining two CAP required phytoremediation Ebuffers® were installed during 2011, and it will take several years for tree growth to be adequate to considered the Ebuffers® as functional. Therefore, the approved remedies of phytoremediation coupled with monitored natural attenuation, and

maintaining consistent contours within Phase II, appear capable of restoring groundwater quality in the Phase II portion of the Facility. No modifications to the selected remedy are proposed.

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3.2 Supplemental Risk Assessment

Based on the results discussed in this report, no supplemental risk assessment is needed for the Facility.

3.3 Contingency Plan and Land Use Restrictions

Due to the effectiveness of the selected remedy and the improved groundwater quality results, and compliance with the 2L Standards at the compliance monitoring points, the Facility's contingency plan does not need to be implemented at this time. Additionally, no land use restrictions are warranted since the COC plume does not appear to be migrating beyond the compliance boundary and the risk to sensitive receptors is low.

4.0 REFERENCES

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TABLES

TABLE 1 GROUNDWATER ELEVATION DATA SUMMARY PHASE II - WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081

				Static Water Levels			
Well No.	Туре	Elevation	Depth of	October 2011		May 2011	
		TOC	Well	DTGW	Elevation	DTGW	Elevation
		(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
II-1	Compliance	692.34	26.50	16.86	675.48	15.13	677.21
II-2	Compliance	690.05	32.24	20.23	669.82	19.37	670.68
II-3	Compliance	688.05	32.45	17.51	670.54	16.92	671.13
II-4	Compliance	703.27	28.72	15.96	687.31	10.33	692.94
11-5	Compliance	714.31	15.96	7.18	707.13	6.91	707.40
II-6	Compliance	698.47	20.57	13.10	685.37	10.87	687.60
II-7	Compliance	684.08	27.54	14.02	670.06	13.69	670.39
II-7B	NES	687.21	101.50	17.27	669.94	17.04	670.17
II-8	Compliance	707.09	34.95	9.57	697.52	9.19	697.90
11-9	NES	697.01	25.10	NG		NG	
II-10	NES	703.90	23.40	NG		NG	
li-11	NES	701.77	26.60	NG		NG	
II-12	Compliance	700.97	22.90	10.44	690.53	10.06	690.91
MW-13	Compliance	741.30	33.78	21.98	719.32	18.91	722.39
MW-14	Compliance	765.30	34.28	31.92	733.38	27.13	738.17

TOC = Top of Casing. Elevations determined by survey: HDR Engineering, Inc.

Depth of well data as reported by BPA Environmental & Engineering, Inc.

DTGW = Depth to Groundwater

Elevation = calculated groundwater elevation

NG = Not Gauged

TABLE 2 GROUNDWATER VELOCITY DATA - OCTOBER 2011 PHASE II - WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081

Well No.	Representing	Hydraulic	Porosity	Gradient	Groundwater
	Corrective Measure	Conductivity			Velocity
	Area	(K = feet/day)	(n = %)	(I = feet/feet)	(V= feet/day)
II-1	Southern EBuffer	0.119	0.2	0.024	0.014
II-2	Suspended	0.329	0.2	0.015	0.025
II-3		0.380	0.2	0.024	0.045
II-4		0.200	0.2	0.038	0.038
II-5		0.042	0.2	0.037	0.008
II-6		0.221	0.2	0.015	0.017
II-7	Suspended	1.077	0.2	0.008	0.040
II-8		2.353	0.2	0.016	0.192
II-9	Northern Ebuffer				
MW-14		0.740	0.2	0.015	0.054

Notes: Hydraulic Conductivity's from slug test data by BPA Environmental & Engineering Inc.

and HDR Engineering

Porosity values from published literature, based on soil types

Gradients are based upon groundwater elevation data from this monitoring event

Velocity calculated using V = Kl/n

NA = Not Applicable, deeper aquifer monitoring well

TABLE 3 GROUNDWATER ANALYTICAL RESULTS SCREENING OF ANAEROBIC BIODEGRADATION PROCESSES SENTINEL WELL II-1

WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081

Parameters	April 2007	Point Value	October 2009	Point Value	January 2010	Point Value	April 2010	Point Value	August 2010	Point Value
Temperature (°C)	13.36	0	13.46	0	7.07	0	13.88	0	20.34	
pH (s.u.)	6.33	0	8.58	0	10.61	-2	6.23	0	6.87	0
Oxygen (mg/L)	0.47	3	0.74	2	1.74	0	0.23	2	0.87	
ORP	-316	2	46	1	15		245	0	186	0
Iron, Ferrous (mg/L)	0.042	0	3.3	3	0.34	0	0.66	0	3.3	2
Dissolved Hydrogen	NΛ		0.68	0	2.1	3	4.10	3	4.8	3
Chloride (mg/L)	450	2	410	2	520	2	390	2	410	
Nitrate (mg/L)	0.015	2	0.028	2	0.025	2	BQL	0	0.062	2
Sulfate (mg/L)	25	0	12	2	18	2	14	2	12	0
Sulfide (mg/L)	0.1	0	BQL	0	BQL	0	BQL	0	BQL	0
Alkalinity (mg/L)	NA		320	1	390	1	350	i	580	1
Total Organic Carbon (mg/L)	15	0	30	2	30	2	23	2	34	2
Carbon Dioxide (mg/L)	NA		733	1	525	1	544	1	829	1
Ethane/Ethene (mg/L)	NΛ		BQL	0	BQL	0	0.0007	0	BQL	0
Methane (mg/L)	0.135	0	0.266	0	0.0009	0	0.007	0	0.213	0
Volatile Fatty Acids (mg/L)	NA _		28.4	2	29.8	2	BQL	0	2.600	2
BTEX (ug/L)	BQL	0	1.4	2	0.99	2	0.72	2	1.4	2
Trichloroethene (ug/L)	BQL	0	0.91	0	0.41	0	0.55	0	0.62	0
Dichloroethene (ug/L)	BQL	0	3.0	0	2.2	0	BQL	0	4.9	0
Vinyl Chloride (ug/L)	BQL	0	1.6	0	BQL	0	0.49	0	1.5	0
1.1,1 Trichloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Chloroethane (ug/L)	BQL	0	1.7	0	BQL	0	0.74	0	1.5	0
Total Point Value Score		9		20		16		15		22

Interpretation of Points Awarded

0 to 5 = Inadequate evidence of anaerobic biodegradation of chlorinated organics

6 to 14 = Limited evidence for anaerobic biodegradation of chlorinated organics

14 to 20 = Adequate evidence for anaerobic biodegradation of chlorinated organics

> 20 = Strong evidence of anaerobic biodegradation of chlorinated organics

BQL = Below Quantitation Limits

Orange shaded cells = points awarded only if the compound is a daughter product

TABLE 4 GROUNDWATER ANALYTICAL RESULTS SCREENING OF ANAEROBIC BIODEGRADATION PROCESSES MONITORING WELL II-2 WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA

S&ME	PRO.	ECT I	NO 1	584-98-081
DOCTATE	1 1/00		10. 1	1204-20-UO I

Parameters	April 2007	Point Value	October 2009	Point Value	January 2010	Point Value	April 2010	Point Value	August 2010	Point Value
Temperature (°C)	17.86	0	14.92	0	9.77	0	14.78	0	22.55	1
pH (s.u.)	6.86	0	9.51	-2	11.29	-2	6.84	0	7.48	0
Oxygen (mg/L)	0.78	2	0.7	2	1.96	0	6.23	-3	2.21	-1
ORP	-302	2	-113	2	-131	2	182	0	142	0
Iron, Ferrous (mg/L)	0.042	0	0.5	0	0.98	0	1.73	3	0.79	0
Dissolved Hydrogen	NA		1.2	3	2	3	4.5	3	0.91	2
Chloride (mg/L)	12	2	11	2	13	2	12	2	12	2
Nitrate (mg/L)	0.013	2	BQL	2	0.031	2	BQL	2	0.029	2
Sulfate (mg/L)	25	0	27	0	25	0	19	2	21	0
Sulfide (mg/L)	0.1	0	BQL	0	BQL	0	BQL	0	BQL	0
Alkalinity (mg/L)	NA		370	1	360	1	330	1	460	1
Total Organic Carbon (mg/L)	2.2	0	0.88	0	1.5	0	2.0	0	1.300	2
Carbon Dioxide (mg/L)	NA		110	0	131	0	164	0	175	0
Ethane/Ethene (mg/L)	NA		BQL	0	BQL	0	BQL	0	BQL	0
Methane (mg/L)	3.49	3	1.06	3	1.35	3	1.47	3	1.300	3
Volatile Fatty Acids (mg/L)	NA		0.17	2	0.879	2	BQL	0	BQL	0
BTEX (ug/L)	1.4	2	1.9	2	1.8	2	0.79	2	0.88	2
Trichloroethene (ug/L)	BQL	0	4.7	0	3.9	0	2.6	0	4.1	0
Dichloroethene (ug/L)	6.8	0	20	0	21	0	12	0	20	0
Vinyl Chloride (ug/L)	3.2	0	5.4	0	5.7	0	3.3	0	4.8	0
1,1,1 Trichloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Chloroethane (ug/L)	BQL	0	0.61	0	BQL	0	BQL	0	BQL	0
Total Point Value Score		13		17		15		15		14

Interpretation of Points Awarded

0 to 5 = Inadequate evidence of anaerobic biodegradation of chlorinated organics

6 to 14 = Limited evidence for anaerobic biodegradation of chlorinated organics

14 to 20 = Adequate evidence for anaerobic biodegradation of chlorinated organics

> 20 = Strong evidence of anaerobic biodegradation of chlorinated organics

BQL = Below Quantitation Limits

Orange shaded cells = points awarded only if the compound is a daughter product

TABLE 5 GROUNDWATER ANALYTICAL RESULTS SCREENING OF ANAEROBIC BIODEGRADATION PROCESSES MONITORING WELL II-2B WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081

Parameters	April 2007	Point Value	October 2009	Point Value	January 2010	Point Value	April 2010	Point Value	August 2010	Point Value
Temperature (°C)	19.22	0	17.84	0	10.47	0	18.07	0	21.77	1
pH (s.u.)	6.32	0	9.12	-2	6.44	0	6.20	0	7.01	0
Oxygen (mg/L)	0.16	3	0.7	2	0.46	3	0.64	2	0.53	2
ORP	-373	2	-113	2	-70	1	211	0	172	0
Iron, Ferrous (mg/L)	1.7	3	3.13	3	1.96	3	2.92	3	2.67	3
Dissolved Hydrogen	NΛ		1.4	3	1.1	3	3.8	3	6.0	3
Chloride (mg/L)	11	2	10	2	11	2	11	2	11	2
Nitrate (mg/L)	0.01	2	0.41	2	0.032	2	BQL	2	BQL	2
Sulfate (mg/L)	25	0	21	0	22	0	21	0	21	0
Sulfide (mg/L)	0,1	0	BQL	0	BQL	0	BQL	0	BQL	0
Alkalinity (mg/L)	NΛ		220	1	210	ı	200		310	<u> </u>
Total Organic Carbon (mg/L)	3.3	0	2.1	0	2.6	0	2.1	0	2.400	0
Carbon Dioxide (mg/L)	NA		235	1	260	1	354	1	341	<u>~_</u>
Ethane/Ethene (mg/L)	NA		BQL	0	BQL	0	BQL	0	BQL	0
Methane (mg/L)	2.33	3	1.13	3	0.384	0	1.33	3	0.692	3
Volatile Fatty Acids (mg/L)	NΛ		0.46	2	BQL	0	BQL	0	BQL	0
BTEX (ug/L)	BQL	0	BQL	0	1.2	2	1.1	2	0.98	2
Trichloroethene (ug/L)	BQL	0	BQL	0	2.5	0	2.5	0	2.8	0
Dichloroethene (ug/L)	BQL	0	BQL	0	17	0	16	0	15	0
Vinyl Chloride (ug/L)	BQL	0	BQL	0	4	0	3.5	0	3.4	0
1,1,1 Trichloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Chloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Total Point Value Score		15		19		18		19		20

Interpretation of Points Awarded

0 to 5 = Inadequate evidence of anaerobic biodegradation of chlorinated organics

6 to 14 = Limited evidence for anaerobic biodegradation of chlorinated organics

14 to 20 = Adequate evidence for anaerobic biodegradation of chlorinated organics

> 20 = Strong evidence of anaerobic biodegradation of chlorinated organics

BQL = Below Quantitation Limits

Orange shaded cells = points awarded only if the compound is a daughter product

TABLE 6 GROUNDWATER ANALYTICAL RESULTS SCREENING OF ANAEROBIC BIODEGRADATION PROCESSES

SENTINEL WELL II-7 WHITE STREET LANDFILL

GREENSBORO, NORTH CAROLINA

S&ME PROJECT NO. 1584-98-081

Parameters	April 2007	Point Value	October 2009	Point Value	January 2010	Point Value	April 2010	Point Value	August 2010	Point Value
Temperature (°C)	14.27	0	12.15	0	11.43	0	18.12	0	25.17	1
pH (s.u.)	5.42	0	8.29	0	5.56	0	5.5	0	6.15	0
Oxygen (mg/L)	0.96	2	2.48	0	1.61	0	5.1	-3	0.61	2
ORP	-268	2	92	0	1	1	332	0	310	0
Iron, Ferrous (mg/L)	0.042	0	0.18	0	0.25	0	0.1	0	0.01	0
Dissolved Hydrogen	NΛ		2.6	3	3.7	3	5.8	3	1.5	3
Chloride (mg/L)	4.3	0	58	2	12	2	18	2	16	2
Nitrate (mg/L)	2.2	0	0.33	2	0.27	2	BQL	2	0.130	2
Sulfate (mg/L)	4.7	2	23	0	11	2	14	2	12	2
Sulfide (mg/L)	0.1	0	BQL	0	BQL	0	BQL	0	BQL	0
Alkalinity (mg/L)	NA		59	1	83	1	70		510	1
Total Organic Carbon (mg/L)	1.3	0	7.3	0	4.0	0	3.5	0	2.800	0
Carbon Dioxide (mg/L)	NΛ		320	1	393	1	430	1	409	1
Ethane/Ethene (mg/L)	NA	-	BQL	0	BQL	0	BQL	0	BOL	0
Methane (mg/L)	0.009	0	0.45	0	0.055	0	0.029	0	0.010	0
Volatile Fatty Acids (mg/L)	NA		0.64	2	0.045	0	BQL	0	BQL	0
BTEX (ug/L)	BQL	0	BQL	0	2.09	2	1.27	2	BQL	0
Trichloroethene (ug/L)	BQL	0	0.48	0	BQL	0	BQL	0	BQL	0
Dichloroethene (ug/L)	1.1	0	0.94	0	3.9	0	3.5	0	0.71	0
Vinyl Chloride (ug/L)	BQL	0	0.47	0	1.0	0	0.75	0	BQL	0
1,1,1 Trichloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Chloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Total Point Value Score		6		11		14		10		14

Interpretation of Points Awarded

0 to 5 = Inadequate evidence of anaerobic biodegradation of chlorinated organics

6 to 14 = Limited evidence for anaerobic biodegradation of chlorinated organics

14 to 20 = Adequate evidence for anaerobic biodegradation of chlorinated organics

> 20 = Strong evidence of anaerobic biodegradation of chlorinated organics

BQL = Below Quantitation Limits

Orange shaded cells = points awarded only if the compound is a daughter product

TABLE 7 GROUNDWATER ANALYTICAL RESULTS SCREENING OF ANAEROBIC BIODEGRADATION PROCESSES

SENTINEL WELL II-7B

WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA

S&ME PROJECT NO. 1584-98-081

Parameters	April 2007	Point Value	October 2009	Point Value	January 2010	Point Value	April 2010	Point Value	August 2010	Point Value
Temperature (°C)	15.14	0	11.7	0	9.22	0	14.19	0	23.19	1
pH (s.u.)	10.43	-2	13.6	-2	10.48	-2	10.49	-2	11.14	-2
Oxygen (mg/L)	0.92	2	0.81	2	0.52	2	2.59	0	1.96	0
ORP	-282	2	-126	2	-127	2	159	0	94	0
Iron, Ferrous (mg/L)	0.042	0	0.02	0	0.01	0	0.07	0	0.13	0
Dissolved Hydrogen	NΛ		1	2	3.6	3	5.0	3	1.1	3
Chloride (mg/L)	4.8	0	4.7	0	3.8	0	4.8	0	4.800	0
Nitrate (mg/L)	0.023	2	0.28	2	0.25	2	0.23	2	0.140	2
Sulfate (mg/L)	0.1	2	100	0	100	0	100	0	100	0
Sulfide (mg/L)	0.1	0	BQL	0	BQL	0	BQL	0	BOL	0
Alkalinity (mg/L)	NA		99	I	95	1	110	1	100	
Total Organic Carbon (mg/L)	3.1	0	2.5	0	2.5	0	2.3	0	2.300	0
Carbon Dioxide (mg/L)	NΛ		BQL	0	BQL	0	BQL	0	BQL	0
Ethane/Ethene (mg/L)	NΛ		BQL	0	BQL	0	BQL	0	BQL	0
Methane (mg/L)	0.003	0	0.023	0	0.006	0	0.002	0	0.003	0
Volatile Fatty Acids (mg/L)	NΛ		0.53	2	BQL	0	BQL	0	BQL	0
BTEX (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Trichloroethene (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Dichloroethene (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Vinyl Chloride (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
1,1,1 Trichloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Chloroethane (ug/L)	BQL	0	BQL	0	BQL	0	BQL	0	BQL	0
Total Point Value Score	-	6		9		8	-	4		5

Interpretation of Points Awarded

0 to 5 = Inadequate evidence of anaerobic biodegradation of chlorinated organics

6 to 14 = Limited evidence for anaerobic biodegradation of chlorinated organics

14 to 20 = Adequate evidence for anaerobic biodegradation of chlorinated organics

> 20 = Strong evidence of anaerobic biodegradation of chlorinated organics

BQL = Below Quantitation Limits

Orange shaded cells = points awarded only if the compound is a daughter product

TABLE 8 GROUNDWATER ANALYTICAL RESULTS SCREENING OF ANAEROBIC BIODEGRADATION PROCESSES MONITORING WELL II-9 WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA

S&ME PROJECT NO. 1584-98-081

Parameters	April 2007	Point Value	October 2009	Point Value	January 2010	Point Value	April 2010	Point Value	August 2010	Point Value
Temperature (°C)	15.37	0	14.77	0	11.28	0	16.37	0	20.45	1
pH (s.u.)	5.51	0	9.25	-2	6.23	0	6.14	0	7.03	0
Oxygen (mg/L)	0.19	3	0.36	3	1.02	0	0.81	1	0.15	3
ORP	-319	2	-46	1	75	0	367	0	274	0
Iron, Ferrous (mg/L)	0.042	0	0.39	0	0.07	0	0.06	0	0.08	0
Dissolved Hydrogen	NA		1.1	3	BQL	0	3.6	3	0.89	2
Chloride (mg/L)	6	0	10	2	6.5	2	12	2	11	2
Nitrate (mg/L)	0.41	2	0.077	2	0.25	2	0.12	2	0.130	2
Sulfate (mg/L)	40	0	16	2	51	0	27	0	15	2
Sulfide (mg/L)	0.1	0	BQL	0	BQL	0	BQL	0	BQL	0
Alkalinity (mg/L)	NA		190	1	92	1	110	1	320	1
Total Organic Carbon (mg/L)	9.2	0	2.5	0	4.1	0	4.5	0	3.000	0
Carbon Dioxide (mg/L)	NA		280	1	201	1	295	1	307	1
Ethane/Ethene (mg/L)	NA		BQL	0	BQL	0	BQL	0	BQL	0
Methane (mg/L)	0.002	0	0.085	0	0.0009	0	0.006	0	0.030	3
Volatile Fatty Acids (mg/L)	NA		0.39	2	BQL	0	0.95	2	BQL	0
BTEX (ug/L)	BQL	0	NA		BQL	0	BQL	0	BOL	0
Trichloroethene (ug/L)	BQL	0	NΛ		BQL	0	BQL	0	BQL	0
Dichloroethene (ug/L)	BQL	0	NA		4.2	0	11	0	20	0
Vinyl Chloride (ug/L)	BQL	0	NA		BQL	0	0.66	0	2.6	0
1,1,1 Trichloroethane (ug/L)	BQL	0	NA		BQL	0	BQL	0	BOL	0
Chloroethane (ug/L)	BQL	0	NA		BQL	0	BQL	0	0.46	2
Total Point Value Score		7		15		6		12		19

Interpretation of Points Awarded

0 to 5 = Inadequate evidence of anaerobic biodegradation of chlorinated organics

6 to 14 = Limited evidence for anaerobic biodegradation of chlorinated organics

14 to 20 = Adequate evidence for anaerobic biodegradation of chlorinated organics

> 20 = Strong evidence of anaerobic biodegradation of chlorinated organics

BQL = Below Quantitation Limits

Orange shaded cells = points awarded only if the compound is a daughter product

TABLE 9 GROUNDWATER ANALYTICAL RESULTS SCREENING OF ANAEROBIC BIODEGRADATION PROCESSES BACKGROUND WELL MW-14 WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081

Parameters	Average	October 2009	Point Value	January 2010	Point Value	April 2010	Point Value	August 2010	Point Value
Temperature (°C)		18.5	0	14.41	0	21.23	1	21.23	1
pH (s.u.)	6.29	8.69	0	5.78	0	5.35	0	5,35	0
Oxygen (mg/L)	3.72	3.47	0	1.56	0	4.92	0	4.92	0
ORP	257	37	1	99	0	446	0	446	0
Iron, Ferrous (mg/L)	0.023	0.01	0	0.04	0	0.02	0	0.02	0
Dissolved Hydrogen		1	2	BQL	0	3.4	3	0.82	0
Chloride (mg/L)	3.25	3.3	0	2.1	0	3.9	0	3.700	0
Nitrate (mg/L)		0.017	2	BQL	2	BQL	2	BQL	2
Sulfate (mg/L)		2	2	1.2	2	BQL	2	1.500	2
Sulfide (mg/L)		BQL	0	BQL	0	BQL	0	BQL	0
Alkalinity (mg/L)	20	19	0	23	0	16	0	20	0
Total Organic Carbon (mg/L)		BQL	0	BQL	0	0.32	0	0.400	2
Carbon Dioxide (mg/L)	98	85.5	0	71.4	0	111	0	126	0
Ethane/Ethene (mg/L)		BQL	0	BQL	0	BQL	0	BQL	0
Methane (mg/L)		0.001	0	0.001	0	BQL	0	BQL	0
Volatile Fatty Acids (mg/L)		0.58	2	BQL	0	BQL	0	BQL	0
BTEX (ug/L)		BQL	0	BQL	0	BQL	0	BQL	0
Trichloroethene (ug/L)		BQL	0	BQL	0	BQL	0	BQL	0
Dichloroethene (ug/L)		BQL	0	BQL	0	BQL	0	BQL	0
Vinyl Chloride (ug/L)		BQL	0	BQL	0	BQL	0	BQL	0
1,1,1 Trichloroethane (ug/L)		BQL	0	BQL	0	BQL	0	BQL	0
Chloroethane (ug/L)		BQL	0	BQL	0	BQL	0	BQL	0
Total Point Value Score			9		4		8	-	7

Interpretation of Points Awarded

0 to 5 = Inadequate evidence of anaerobic biodegradation of chlorinated organics

6 to 14 = Limited evidence for anaerobic biodegradation of chlorinated organics

14 to 20 = Adequate evidence for anaerobic biodegradation of chlorinated organics

> 20 = Strong evidence of anaerobic biodegradation of chlorinated organics

BQL = Below Quantitation Limits

Orange shaded cells = points awarded only if the compound is a daughter product

TABLE 10

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS DETECTED VOLATILE ORGANIC COMPOUNDS

SELECT WELLS LOCATED WITHIN WHITE STREET LANDFILL - PHASE II GREENSBORO, NORTH CAROLINA

S&ME PROJECT NO. 1584-98-081

					<u>A00</u>	11-2						
				· · · · · · · · · · · · · · · · · · ·	Sample L	ocations					NC SWSL	NCAC 2L
Well ID	11-2	11-2	II-2	II-2	II-2B	II-2B	II-2B	SMW-1	SMW-1	SMW-1		Std.
Date Collected	4/1/10	10/6/10	5/10/11	10/12/11	1/14/10	4/29/10	8/3/10	8/2/10	10/11/10	10/7/11		
units	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
1,1-Dichloroethane	16	17	16	12	NA	NA	NA	ND	ND	ND	5	6
1,1-Dichloroethene	0.45 J	0.49J	ND	ND	NA	NA	NA	ND	ND	ND	5	7
1,2-Dichlorobenzene	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	5	20
1,4-Dichlorobenzene	0.61 J	0.54 J	0.87 J	ND	NA	NA	NA	ND	ND	ND	1	6
4-Methyl 2-Pentanone	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	100	ns
Acetone	ND	5.2 J	ND	ND	NA	NA	NA	ND	1.5 J	ND	100	6,000
Benzene	1.2	0.67 J	ND	ND	1.2	1.1	0.98J	ND	ND	ND	1	1
Chlorobenzene	0.62 J	0.74 J	0.78 J	0.99 J	NA	NA	NA	ND	ND	ND	3	50
Chloroethane	ND	0.57 J	ND	ND	ND	ND	ND	ND	ND	ND	10	3,000
Chloromethane	ND	ND	ND	ND	NA	NA	NA	0.40 J	ND	ND	1	3
cis 1,2-dichloroethene	20	23	21	21	17	16	15	ND	ND	ND	5	70
Tetrachloroethene	4.2	3.6	2.9	ND	NA	NA	NA	ND	ND	ND	1	0.7
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	600
Trichloroethene	4.1	3.6	3.3	ND	2.5	2.5	2.8	ND	ND	ND	1	3
Trichlorofluoromethane	2.7	2.3	1.2	ND	NA	NA	NA	ND	ND	ND	1	2,000
Vinyl Chloride	4.8	5.4	5.1	3.5	4	3.5	3.4	ND	ND	ND	1	0.03
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	500

ND = compound not detected

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = no corresponding NCAC 2L groundwater quality standard

NC SWSL= North Carolina Solid Waste Section Limit (minimum detection limits)

NCAC 2L std. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater

Quantities highlighted in orange were detected above the 2L standards

NA = Parameter not analyzed during the specified event

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS DETECTED VOLATILE ORGANIC COMPOUNDS

SELECT WELLS LOCATED WITHIN WHITE STREET LANDFILL - PHASE II GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081

				AOC II-6					
			Sar	nple Locati	ons			NC SWSL	NCAC 2L
Well ID	II-6	II-6	II-6	11-6	SMW-4	SMW-4	SMW-4	1	Std.
Date Collected	4/1/10	10/6/10	5/9/11	10/10/11	8/2/10	10/11/10	10/7/11		
units	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	5	6
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5	7
1,2-Dichlorobenzene	0.43 J	0.51 J	ND	ND	ND	ND	ND	5	20
1,4-Dichlorobenzene	3.4	4.7	ND	4.0	ND	ND	ND	1	6
4-Methyl 2-Pentanone	ND	ND	ND	ND	ND	ND	ND	100	ns
Acetone	5.4 J	ND	ND	ND	ND	ND	ND	100	6,000
Benzene	1.6	2.2	ND	2.4	ND	ND	ND	1	1
Chlorobenzene	4.5	7.4	ND	6.8	ND	ND	ND	3	50
Chloroethane	ND	ND	ND	ND	ND	ND	ND	10	3,000
Chloromethane	ND	ND	ND	ND	ND	ND	ND	1	3
cis 1,2-dichloroethene	ND	ND	ND	ND	ND	ND	ND	5	70
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	1	0.7
Toluene	ND	ND	ND	ND	ND	ND	ND	1	600
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	1	3
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	1	2,000
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	1	0.03
Xylenes (total)	1.8 J	4.0 J	ND	5.5	ND	ND	ND	5	500

ND = compound not detected

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = no corresponding NCAC 2L groundwater quality standard

NC SWSL= North Carolina Solid Waste Section Limit (minimum detection limits)

NCAC 2L std. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater Quantities highlighted in orange were detected above the 2L standards

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS DETECTED VOLATILE ORGANIC COMPOUNDS SELECT WELLS LOCATED WITHIN WHITE STREET LANDFILL - PHASE II **GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081**

		AOC II-7									
				Sample L	ocations				NC SWSL	NCAC 2L	
Well ID		11-7	II-7	11-7	II-7B	II-7B	II-7B	II-7B	1	std	
Date Collected	4/1/10	10/6/10	5/9/11	10/13/11	4/1/10	10/6/10	5/9/11	10/13/11			
units	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
1,1-Dichloroethane	1.1 J	0.42 J	ND	ND	ND	ND	ND	ND	5	6	
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	5	7	
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	5	20	
1,4-Dichlorobenzene	0.53 J	ND	ND	ND	ND	ND	ND	ND	1	6	
4-Methyl 2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	100	ns	
Acetone	2.0 J	ND	ND	ND	ND	ND	ND	ND	100	6,000	
Benzene	0.64 J	ND	ND	ND	ND	ND	ND	ND	1	1	
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	3	50	
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	10	3,000	
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1	3	
cis 1,2-dichloroethene	3.6 J	ND	ND	ND	ND	ND	ND	ND	5	70	
Tetrachloroethene	0.56 J	ND	ND	ND	0.57 J	0.57 J	ND	ND	1	0.7	
Toluene	1.0	ND	ND	ND	ND	ND	ND	ND	1	600	
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1	3	
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	1	2,000	
Vinyl Chloride	0.80 J	ND	ND	ND	ND	ND	ND	ND	1	0.03	
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	5	500	

ND = compound not detected

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = no corresponding NCAC 2L groundwater quality standard

NC SWSL= North Carolina Solid Waste Section Limit (minimum detection limits)

NCAC 2L std. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater Quantities highlighted in orange were detected above the 2L standards

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS DETECTED VOLATILE ORGANIC COMPOUNDS

SELECT WELLS LOCATED WITHIN WHITE STREET LANDFILL - PHASE II GREENSBORO, NORTH CAROLINA

		Southern		-		
:		Sample L	ocations		NC SWSL	NCAC 2L
Well ID	II-1	11-1	II-1	II-1	Ì	Std
Date Collected	4/1/10	10/6/10	5/9/11	10/10/11		
units	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
1,1-Dichloroethane	2.3 J	3.0 J	1.1 J	1.7 J	5	6
1,1-Dichloroethene	ND	ND	ND	ND	5	7
1,2-Dichlorobenzene	ND	0.43 J	ND	ND	5	20
1,4-Dichlorobenzene	6.5	7.5	4.0	7.6	1	6
4-Methyl 2-Pentanone	5.1 J	ND	ND	ND	100	ns
Acetone	ND	ND	ND	ND	100	6,000
Benzene	1.1	1.2	0.78 J	0.98 J	1	1
Chlorobenzene	2.2 J	3.2	1.2 J	4.0	3	50
Chloroethane	0.95 J	1.6 J	ND	ND	10	3,000
Chloromethane	ND	ND	ND	ND	1	3
cis 1,2-dichloroethene	3.3 J	4.2 J	0.88 J	ND	5	70
Tetrachloroethene	ND	ND	ND	ND	1	0.7
Toluene	ND	ND	ND	ND	1	600
Trichloroethene	0.53 J	0.48 J	ND	ND	1	3
Trichlorofluoromethane	ND	ND	ND	ND	1	2,000
Vinyl Chloride	0.90 J	1.4	ND	ND	1	0.03
Xylenes (total)	ND	ND	ND	ND	5	500

ND = compound not detected

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = no corresponding NCAC 2L groundwater quality standard

NC SWSL = North Carolina Solid Waste Section Limit (minimum detection limits)

NCAC 2L std.=15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater

Quantities highlighted in orange were detected above the 2L standards

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS DETECTED VOLATILE ORGANIC COMPOUNDS

SELECT WELLS LOCATED WITHIN WHITE STREET LANDFILL - PHASE II GREENSBORO, NORTH CAROLINA

S&ME PROJECT NO. 1584-98-081

		No	rthern E-Bu	ffer		NC SWSL	NCAC 2L
		Sar	nple Locati	ons			Std.
Well ID	11-9	11-9	SMW-3	SMW-3	SMW-3		
Date Collected	4/29/10	10/7/11	8/2/10	10/11/10	10/7/11		
units	(ug/L)		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
1,1-Dichloroethane	ND	5.8 J	4.2 J	3.8 J	0.88 J	5	6
1,1-Dichloroethene	ND	ND	ND	ND	ND	5	7
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	5	20
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1	6
4-Methyl 2-Pentanone	ND	ND	ND	ND	ND	100	ns
Acetone	ND	ND	3.0 J	ND	ND	100	6,000
Benzene	ND	ND	ND	ND	ND	1	1
Chlorobenzene	ND	ND	ND	ND	ND	3	50
Chloroethane	ND	ND	ND	ND	ND	10	3,000
Chloromethane	ND	ND	0.44 J	0.61 J	ND	1	3
cis 1,2-dichloroethene	11	16	6.9	7.8	1.2 J	5	70
Tetrachloroethene	ND	ND	ND	ND	ND	1	0.7
Toluene	ND	ND	ND	ND	ND	1	600
Trichloroethene	ND	ND	ND	ND	ND	1	3
Trichlorofluoromethane	ND	ND	ND	ND	ND	1	2,000
Vinyl Chloride	0.66 J	0.69 J	0.49 J	0.68 J	ND	1	0.03
Xylenes (total)	ND	ND	ND	ND	ND	5	500

ND = compound not detected

J = Parameters are estimated values between the detection limit and the NC SWSL

ns = no corresponding NCAC 2L groundwater quality standard

NC SWSL= North Carolina Solid Waste Section Limit (minimum detection limits)

NCAC 2L std. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater

Quantities highlighted in orange were detected above the 2L standards

TABLE 10 (Continued) SUMMARY OF GROUNDWATER ANALYTICAL RESULTS DETECTED VOLATILE ORGANIC COMPOUNDS SELECT WELLS LOCATED WITHIN WHITE STREET LANDFILL - PHASE II GREENSBORO, NORTH CAROLINA S&ME PROJECT NO. 1584-98-081

			AOC	CII-3			NC SWSL	NCAC 2L
	II-3	II-3	II-3	11-3	II-3B	II-3B	1	Std.
	4/30/2010	10/8/2010	5/1/2011	10/7/2011	6/15/111	10/7/2011		
Compound	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
1,1-Dichloroethane	15	15	14	11	0.95 J	0.88 J	5	6
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	5	7
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	5	20
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1	6
2-Butanone	ND	ND	ND	ND	ND	ND	100	4,000
4-Methyl 2-Pentanone	ND	ND	ND	ND	ND	ND	100	ns
Acetone	ND	ND	ND	ND	4.9 J	ND	100	6,000
Benzene	0.80 J	0.96 J	ND	1.1	ND	ND	1	1
Chlorobenzene	ND	ND	ND	ND	ND	ND	3	50
Chloroethane	1.6 J	1.6 J	ND	ND	0.86 J	ND	10	3,000
cis 1,2-dichloroethene	0.66 J	0.88 J	1.7 J	ND	ND	ND	5	70
Ethylbenzene	ND	ND	ND	ND	ND	ND	1	600
Tetrachloroethene	ND	ND	ND	ND	ND	ND	1	0.7
Toluene	ND	ND	ND	ND	ND	ND	1	600
Trichloroethene	ND	ND	ND	ND	ND	ND	1	3
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	1	2,000
Vinyl Chloride	ND	0.44 J	ND	ND	ND	ND	1	0.03
Xylenes (total)	ND	ND	ND	ND	ND	ND	5	500

ND = compound not detected

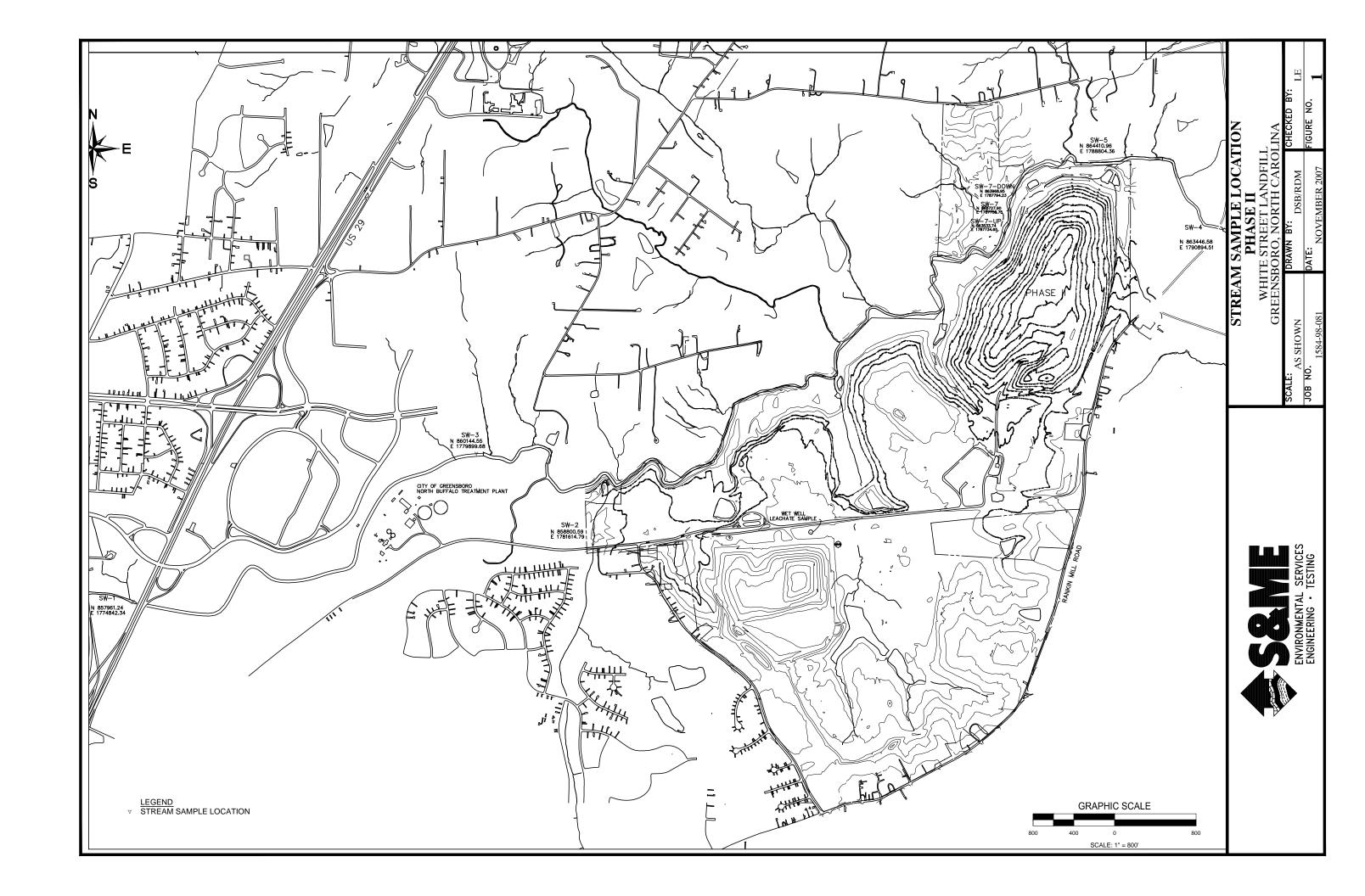
J = Parameters are estimated values between the detection limit and the NC SWSL.

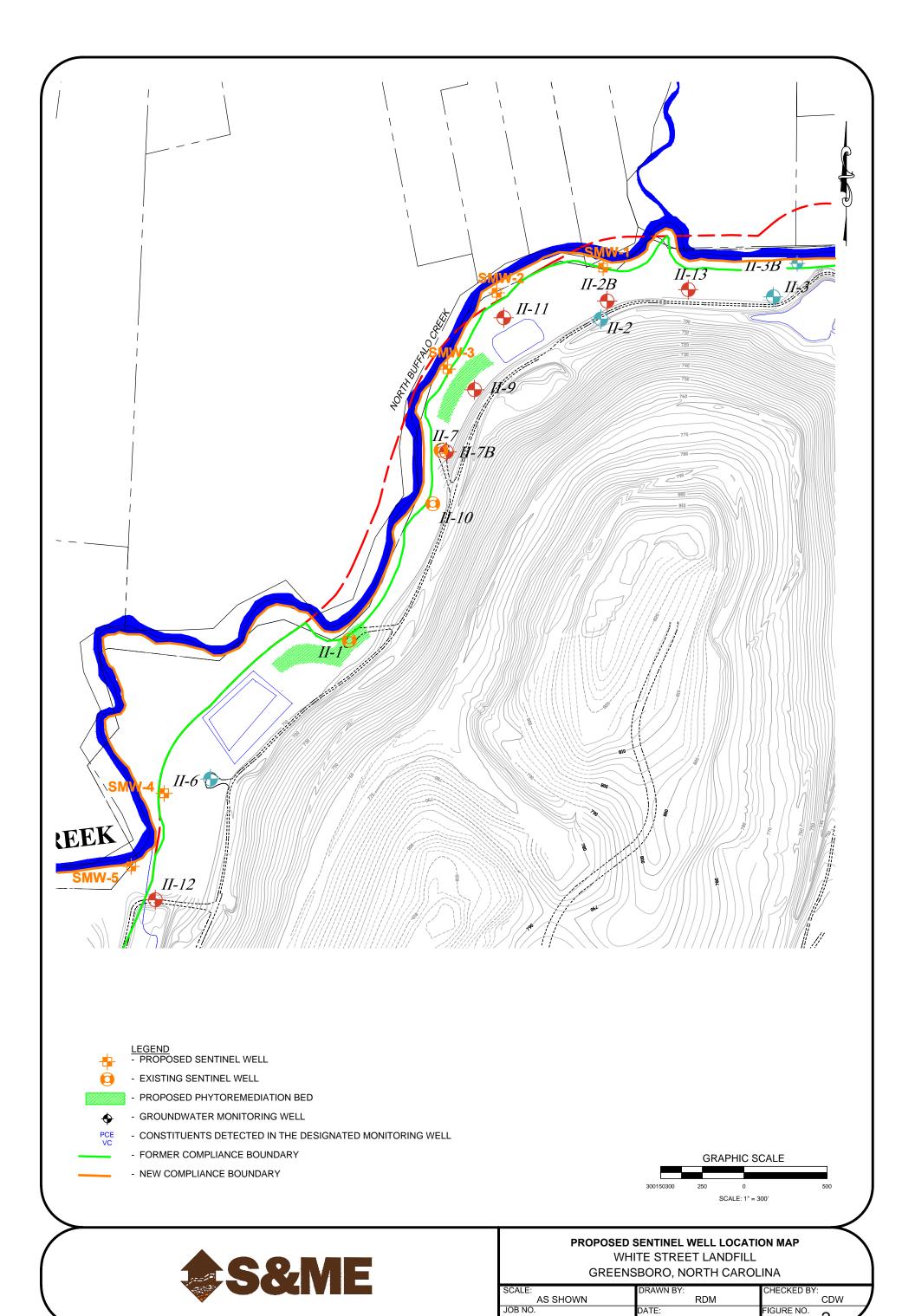
NC SWSL= North Carolina Solid Waste Section Limit

NCAC 2L std. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater Quantities highlighted in orange were detected above the 2L standards

NOTE: Prior to 2010 the NCAC 2L standard for 1,1-dichloroethane was 70 ug/L

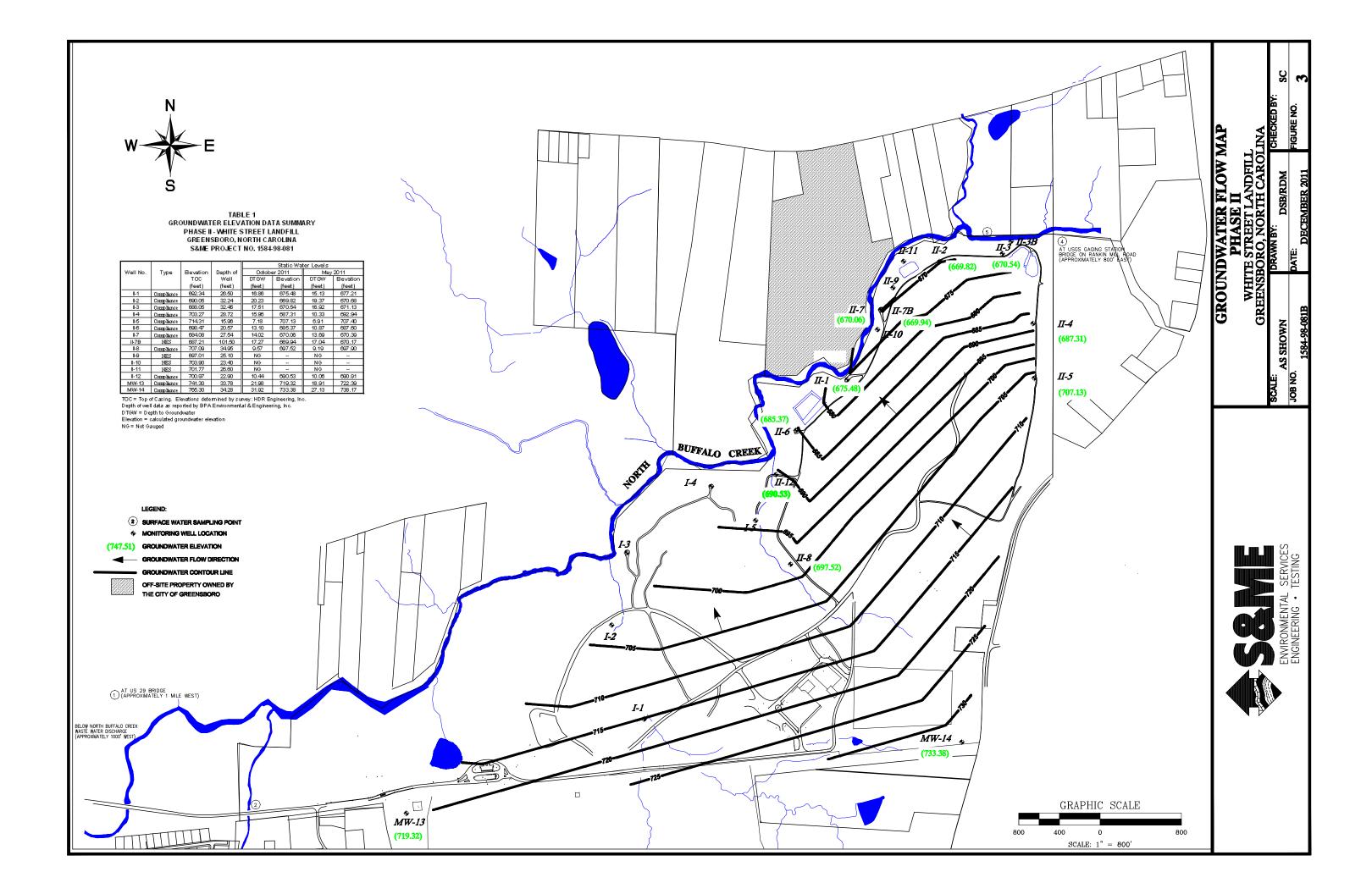
FIGURES

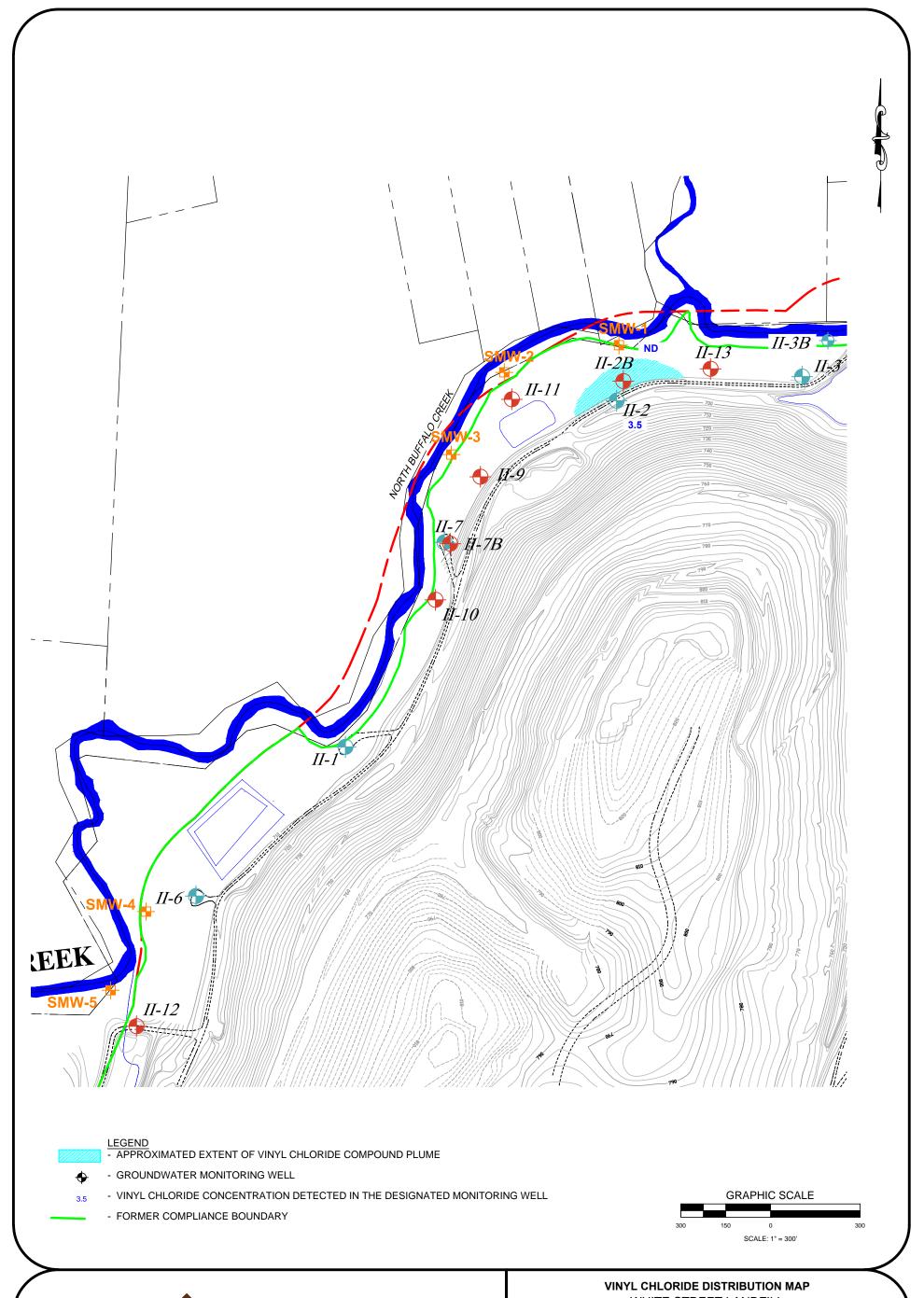


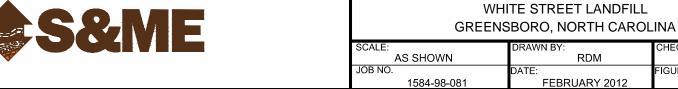


1584-98-081

FEBRUARY 2012



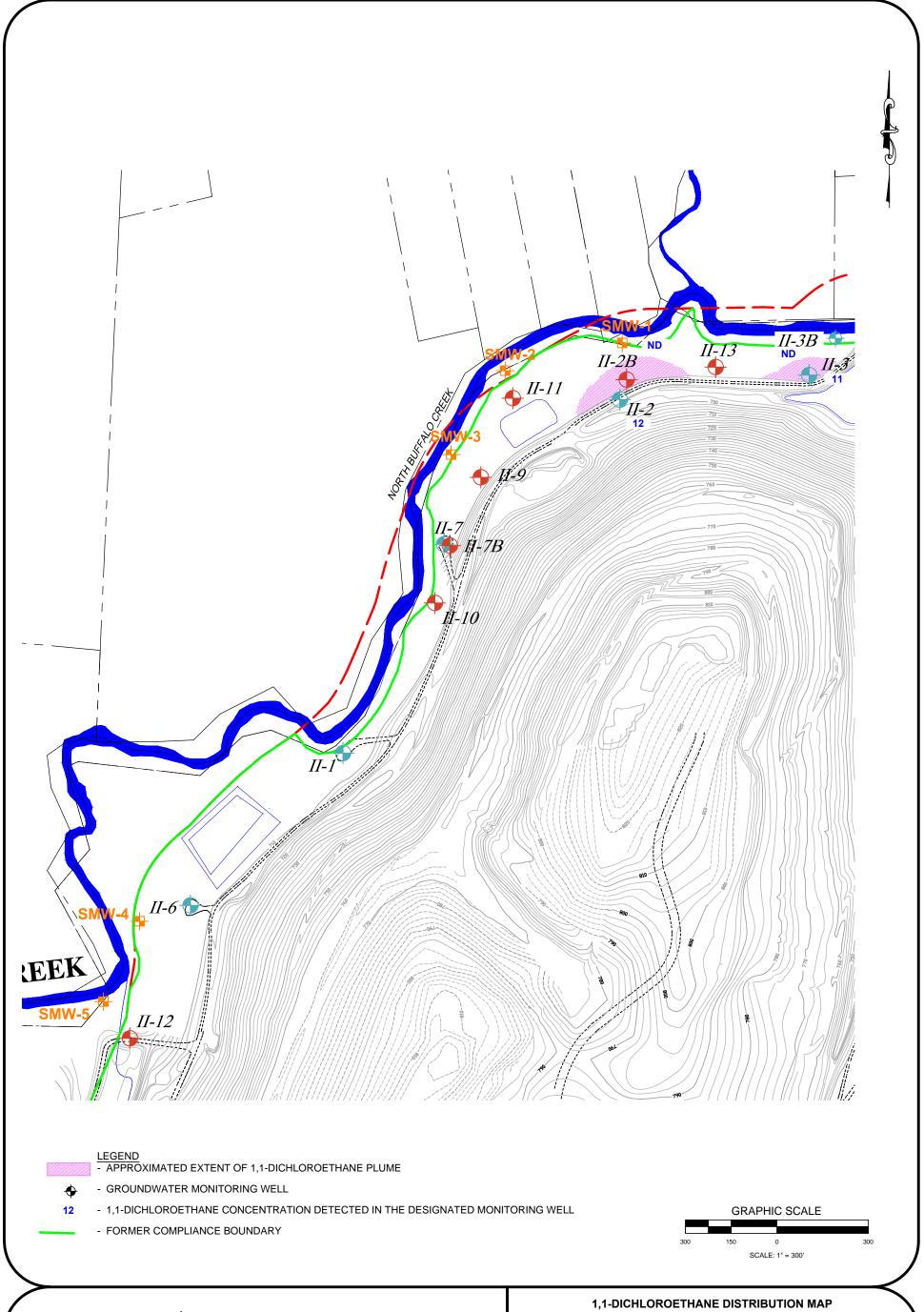




CDW

4

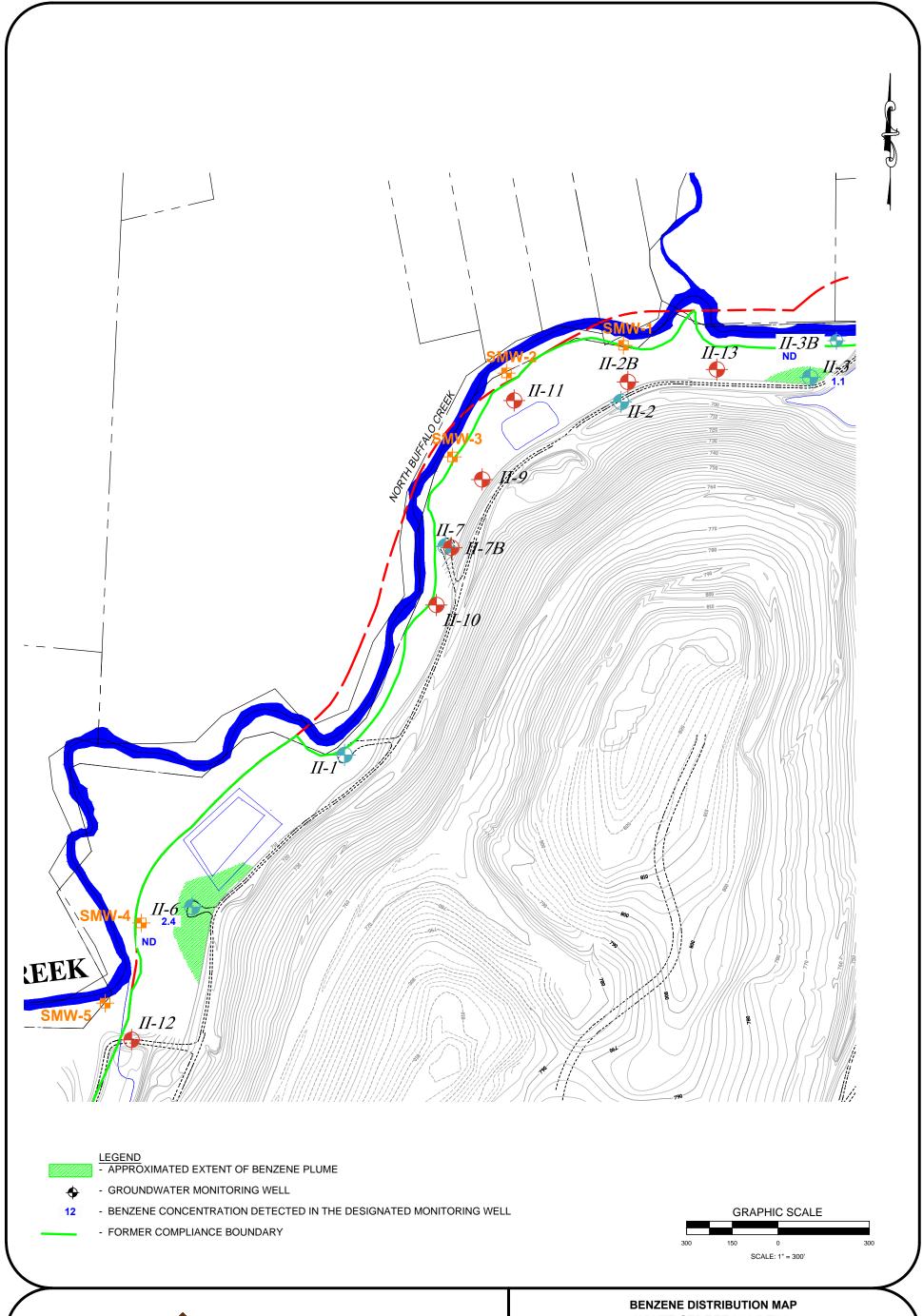
FIGURE NO.





1,1-DICHLOROETHANE DISTRIBUTION MAP WHITE STREET LANDFILL GREENSBORO, NORTH CAROLINA

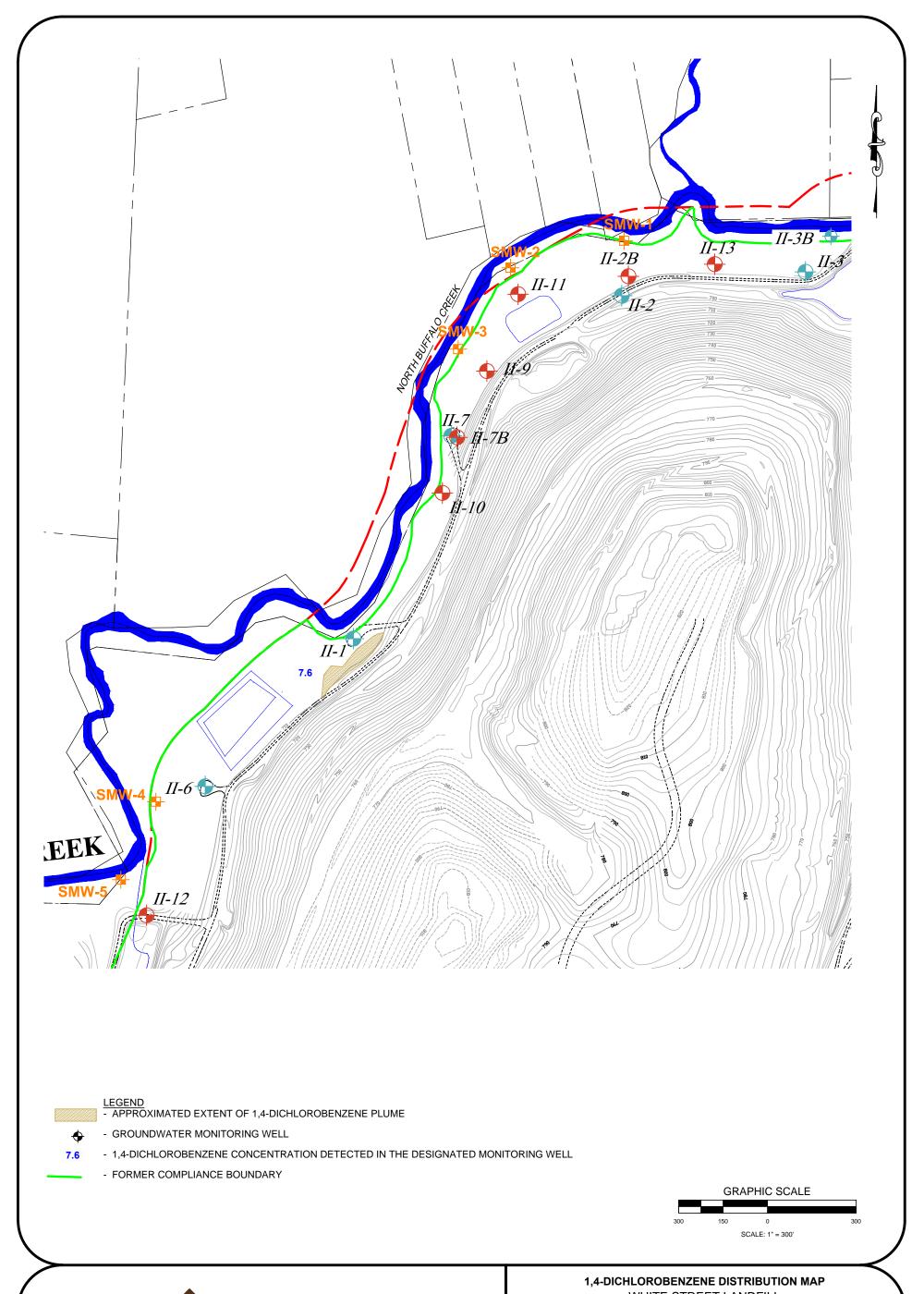
SCALE:	DRAWN BY:	CHECKED BY:
AS SHOWN	RDM	CDW
JOB NO.	DATE:	FIGURE NO. 📙
1584-98-081	FEBRUARY 2012	l 5 /

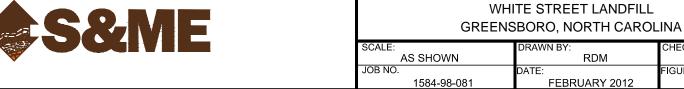




BENZENE DISTRIBUTION MAP
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA

SCALE:	DRAWN BY:	CHECKED BY:
AS SHOWN	RDM	CDW
JOB NO.	DATE:	FIGURE NO.
1584-98-081	FEBRUARY 2012	6





CDW

APPENDIX I

Sentinel Monitoring Wells Lab Reports

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090

PAX: 919.467.3515



Tuesday, May 20, 2008

S&ME, Inc. (SM004)

Attn: Connei Ware

3718 Old Battleground Rd.

Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill ABP

ENCO Workorder: C804447

Dear Connel Ware,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, May 6, 2008.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Stephanie Franz

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 30.

Sphane /



PROJECT NARRATIVE

Date: 20 May 2006

Client: S&ME

Project: White Street Landfill ABP

Lab ID: C804447

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

Chloride, Nitrite, and Nitrate/Nitrite (NOx) were detected in the associated Method Bianks at iow-level concentrations (less than half of the MRL). Associated samples with concentrations of these analytes less than ten times that of the detections in the Method Bianks should be considered to have a possible high bias.

Quality Control Remarks

The spike recoveries of Chloride, Sulfate, and TOC in the MS and/or MSD samples were outside of control limits. The QC batches were approved based on acceptable LCS recoveries of these analytes.

The determination of Ferrous Iron is considered by the EPA to be a field parameter, and as such, has a hold time of 0.01 days (14.4 minutes). As the samples were expired prior to receipt by ENCO, the analyses were performed on the out of hold samples, and the results are appropriately qualified (Q-flagged).

Other Comments

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:

Environmental Conservation Laboratories, Inc.

Stephanie Franz

Project Manager



SAMPLE SUMMARY/LABORATORY CHRONICLE

per si i i i i i i i i i i i i i i i i i i		For the Control of th	Analysis Date/Time(s)
Parameter EPA 300.0	Hold Bate/Time(s) 06/02/08	Prop Data/Time(e) 05/09/08 14:22	\$/10/2008 09:15
EPA 353.2	05/07/08 07:50	05/06/08 13:15	\$/6/2008 15:40
EPA 353.2	06/02/08	65/13/08 09:00	5/13/2008 12:00
EPA 353.2	06/02/08	05/19/08 10:53	5/19/2008 10:53
EPA 376.2	05/12/08	05/09/08 08:44	5/9/2008 08:44
EPA 415.1	06/02/08	05/07/08 10:35	5/7/2006 12:28
RSK 175	05/19/08	eS/08/08 07:48	5/8/2008 13:25
SM18 3500-Fe D	05/05/08 08:04	05/07/08 16:23	5/7/2008 16:23
SM4500-CI/E	06/02/08	05/19/08 07:54	5/19/2008 10:35
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Parameter	Hold Date/Time(s)	Prop Boto/Time(s)	Analysis Date/Time(s)
EPA 300.0	06/02/08	05/09/08 14:22	5/10/2008 09:45
EPA 353.2	05/07/08 11:10	05/06/08 13:15	5/6/2008 15:44
EPA 353.2	06/02/08	05/13/08 09:00	5/13/2006 12:05
EPA 353.2	06/82/08	05/19/08 10:\$3	5/19/2006 10:53
EPA 376.2	05/12/06	95/09/06 08:44	5/9/2008 88:44
EPA 415.1	06/02/08	05/07/08 10:35	5/7/2006 12:28
RSK 175	05/19/08	05/08/08 07:48	5/8/2008 13:34
SM18 3500-Fe D	05/05/08 11:24	05/07/08 16:23	5/7/2008 16:23
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Parameter EPA 300.0 EPA 353.2 EPA 353.2 EPA 353.2 EPA 376.2 EPA 415.1 RSK 175	Held Dubs/Time(s)	Prop Bets/Time(s) 05/09/06 14:22 05/06/06 13:15 05/13/06 09:00 05/19/06 10:53 05/09/06 08:44 05/07/06 10:35 05/08/06 07:46	Analysis Baba/Time(s) \$/10/2008 10:15 \$/6/2008 15:45 \$/13/2008 12:06 \$/19/2008 10:53 \$/9/2008 08:44 \$/7/2008 12:28 \$/8/2008 13:43
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Parameter EPA 300.0 EPA 353.2 EPA 353.2 EPA 353.2 EPA 376.2 EPA 415.1 RSK 175	Held Dubs/Time(s)	Prop Bets/Time(s) 05/08/08 14:22 05/06/08 13:15 05/13/08 09:00 05/19/08 10:53 05/09/08 08:44 05/07/08 10:35 05/08/08 07:40 05/07/08 16:23	Analysis Bubs/Time(s) 5/16/2008 16:15 5/6/2008 15:45 5/13/2008 12:06 5/19/2008 10:53 5/9/2008 08:44 5/7/2008 12:28 5/8/2008 13:43 5/7/2008 16:23
Parameter EPA 300.0 EPA 353.2 EPA 353.2 EPA 353.2 EPA 376.2 EPA 415.1 RSK 175	Held Dubs/Time(s)	Prop Bets/Time(s) 05/09/06 14:22 05/06/06 13:15 05/13/06 09:00 05/19/06 10:53 05/09/06 08:44 05/07/06 10:35 05/08/06 07:46	Analysis Bubs/Pisse(s) \$/10/2008 10:15 \$/6/2008 15:45 \$/13/2008 12:06 \$/19/2008 10:53 \$/9/2008 08:44 \$/7/2008 12:28 \$/8/2008 13:43 \$/7/2008 16:23
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Parameter	Hold Date/Time((s)	Prop Date/	/Time(s)	Analysis Date/Time(s)	
EPA 300.0	06/02/08	· · · · · · · · · · · · · · · · · · ·	05/09/08	14:22	5/10/2008 12:13	
EPA 353.2	05/07/08 10:0	0	05/06/08	13:15	5/6/2008 15:47	
EPA 353.2	06/02/08		05/13/08	09:00	5/13/2008 12:08	
EPA 353.2	06/02/08		05/19/08	10:53	5/19/2008 10:53	
EPA 376.2	05/12/08		05/09/08	06:44	5/9/2008 08:44	
EPA 415.1	06/02/08		05/07/08	10:35	5/7/2008 12:28	
RSK 175	05/19/08		05/06/08	07:48	5/8/2008 14:08	
SM18 3500-Fe D	05/05/08 10:1	•	05/07/08	16:23	5/7/2006 16:23	

		historia Land	
Parameter	Hold Date/Time(s)	Prep Bata/Time(s)	Analysis Date/Time(s)
EPA 300.0	06/02/08	05/09/08 14:22	5/10/2008 13:03
EPA 353.2	05/07/08 15:00	05/06/08 13:15	5/6/2008 15:48
EPA 353.2	06/02/08	05/13/08 09:00	5/13/2008 12:08
EPA 353.2	06/02/08	05/19/08 10:53	5/19/2006 10:53
EPA 376.2	05/12/08	05/09/08 08:44	5/9/2008 08:44
EPA 415.1	06/02/08	95/07/98 10:35	\$/7/2008 12:28
RSK 175	05/19/08	05/08/08 07:48	5/8/2008 16:07
SM18 3500-Fe D	05/05/08 15:14	05/07/08 16:23	5/7/2008 16:23



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

			0.75		عائمت احتيانا	Part of	in cons		
Analyte	Results	Flag	DF	MDL	MRL	NC SWEL	Units	Method	Notes
Chloride	450	₽ D	5	2.4	25	NE	mg/L	SM4500-CI/E	Q8-01
Nitrite as N	0.015	38	1	0.010	0.10	1	mg/L	EPA 353.2	3-01
Sulfate as SO4	25)	1	0.25	5.0	250	mg/L	EPA 300.0	
Sulfate as SO4	25)	1	0.25	5.0	250	mg/L	EPA 300.0	
Total Organic Carbon	15		1	0.32	1.0	NE	mg/L	EPA 415.1	
					area and a second				
\nelyte	Results	Mag	DF	MDL	MRL	NC SWSL	Units	Hethod	Notes
Divioride	12		1	0.25	\$.0	HE	mg/L	EPA 300.0	
fitrite as N	0.013	38	1	0.010	0.10	1	mg/L	EPA 353.2	3-01
Sulfate as SO4	25	,	1	0.25	5.0	250	mg/L	EPA 300.0	
iulfate as 904	25)	1	0.25	5.0	250	mg/L	EPA 300.0	
fetal Organic Carbon	2.2		1	0.32	1.0	NE	mg/L	EPA 415.1	
		3 (1.0 ± 5.1)			grand Armidia is			\$ 1.00 m	
\nel/to	Results	Fleg	ÞF	MDL	MRL.	NC SWSL	Unite	Method	Notes
Chloride	11			0.25	5.0	NE NE	mg/L	EPA 300.0	
Sulfate as \$04	25)	1	0.25	5.0	250	mg/L	EPA 300.0	
iulfate as \$04	25	3	1	0.25	5.0	250	mg/L	EPA 300.0	
etal Organic Carbon	3.3		1	0.32	1.0	NE	mg/L	EPA 415.1	
				W. 2002		Karta artisas			
unalyte	Results	Flag	Þf	MOL	HRL.	NC SWSL	Valte	Mathed	Notes
>Noride	4.3	 .		0.25	5.0	NE	mg/L	EPA 300.0	
Atrate as N	2.2	j	1	9.010	0.10	10	mg/L	EPA 353.2	
Brate/Nitrite as N	2.2		1	0.822	0.10	ME	mg/L	EPA 353.2	Q8-01
ulfate as \$04	4.7	,	1	0.25	5.0	250	mg/L	EPA 300.0	•
ulfate as \$04	4.7	,	1	0.25	5.0	250	mg/L	EPA 300.0	
otal Organic Carbon	1.3		1	0.32	1.0	ME	mg/L	EPA 415.1	
					ا الماريخ المارخ الم	i			
malyte	Results	Floo	D f	MDL	MRL	NC SWSL	Veille	Hethed	Notes
Mortde	4.8	;		0.25	5.0	NE	mg/L	EPA 300.0	
Itrata/Nitrite as N	0.023)B	1	0.022	0.10	NE	mg/L	EPA 353.2	J-01
Rrite as N	0.20	x	1	0.010	0.10	1	mg/L	EPA 353.2	Q8-01
otal Organic Carbon	3.1	-	1	0.32	1.0	NE	mg/L	EPA 415.1	4
					Na papa na ing sangging	h.s.			
	Results	fles	DF	HDL	HRL	NC SWSL	Valte	Nethed	Notes
		 .	- 	0.25	5.0	NE	mg/L	EPA 300.0	
nolyte	6.0					-		· ·	
nelyte Norlde	6.0	J			0.10	10	mg/L	EPA 353.2	
nelyte Norlde Krate as N	0.39	j B	1	0.010	0.10 0.10	10 ME	mg/L mg/L	EPA 353.2 EPA 353.2	Q8-01
nalyte Norlde Krate as N Krate/Nitrite as N	0.39 0.41		1	0.010 0.022	0.10	ME	mg/L	EPA 353.2	Q8-01 3-01
malyta Noride Krate as N Krate/Nitrite as N Krite as N	0.39 0.41 0.018	38	1 1 1	0.010 0.022 0.010	0.10 0.10	NE 1	mg/L mg/L	EPA 353.2 EPA 353.2	Q8-01 3-01
melyte Moride Rrate as N Rrate/Nitrite as N Rrite as N Unitrite as N ulfate as SO4	0.39 0.41		1	0.010 0.022	0.10	ME	mg/L	EPA 353.2	-



ANALYTICAL RESULTS

Description: II-1

Lab Sample ID: C804447-01

Received: 05/06/08 08:30

Matrix: Ground Water

Sampled: 05/05/08 07:50

Sampled By: Gary Simcox

Work Order: C804447

Project: White Street Landfill ABP

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u> Chieride [16007-00-6] ^	Remits 480	Flag 90	<u>Medta</u> mg/L	<u>DF</u> 5	<u>MD4.</u> 2.4	<u>MBL</u> 25	NC SWEL	Mathed SM4500-CI/E	Anchrod 05/19/00 10:35	Box PEV	Notes Q8-01
Nitrate as N [14797-35-8] ^	0.010	U	mg/L	1	0.010	0.10	10	EPA 353.2	05/19/08 10:53	PEV	
Nitrate/Nitrite as N [NA] ^	0.022	U	mg/L	1	0.022	0.10	NE	EPA 353.2	05/13/08 12:00	PEV	
Hitrite as N: [14797-65-0] ^	0.015	38	mg/L	1	0.010	0.10	1	EPA 353.2	05/06/08 15:40	PEV	J-01
Sulfate as 904 [14808-79-8]	25	J	mg/L	1	0.25	5.0	250	EPA 300.0	85/10/08 09:15	A	
Sulfide [18496-25-8]	0.10	U	mg/L	1	0.10	0.10	1	EPA 376.2	05/09/08 08:44	GPW	



Lab Sample ID: C804447-01

Received: 05/06/08 08:30

Work Order: C804447

Matrix: Ground Water

Project: White Street Landfill ABP

Sampled: 05/05/08 07:50

Sampled By: Gary Simcox

Classical Chemistry Parameters

							MC GWGI			_	
Analyta [CAS Number]	Results	Class	Maile	DF.	HOL	HEL	HC SWEL	Hethed	Anghered	M.	Mahas
Iron, Ferrous (NA)	0.042	U	mg/L	1	0.042	0.050		SM18 3500-Fe D	05/07/08 16:23	dps	Q
Total Organic Carbon [NA]	15		mg/L	1	0.32	1.0	NE	EPA 415.1	95/07/08 12:28	DPS	



Lab Sample ID: C804447-01 Sampled: 05/05/08 07:50 Received: 05/06/08 08:30

Work Order: C804447

Metrica Ground Water Project: White Street Landfill ABP

Sampled By: Gary Simcox

Dissolved Gases by GC

 Sinite
 DF
 MOL
 MRL
 MC. SWS1.
 Mathed

 mg/L
 1
 0.0004
 0.001
 RSK 175
 Anabda [CAS Number] By Heles 05/08/08 13:25 MYE



Lab Sample ID: C804147-02 Sampled: 05/05/08 11:10 Received: 05/06/08 08:30

Matrix: Ground Water
Project: White Street Landfill ABP

Sampled By: Gary Simcex

Work Order: C804447

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Angheta (CAS Number)	Regits	Hee	Malte	<u>DE</u>	MOL	MEL	HC SWEL	Mathed	Anthon		Motos
Chieride [10087-00-6]	12		mg/L	1	0.25	5.0	NE	6.00E A93	95/10/08 09:45	A)	
Nitrate as N [14797-55-8] ^	0.010	U	mg/L	1	0.010	0.10	10	EPA 353.2	05/19/08 10:53	PEV	
Nitrate/Nitrite as N [NA] ^	0.022	U	mg/L	1	0.022	0.10	NE	EPA 353.2	05/13/06 12:05	PEV	
Hibrita as H [14797-65-0] ^	0.013	38	mg/L	1	0.010	0.10	1	EPA 353.2	05/06/08 15:44	PEV	3-01
Sulfate as 804 [14008-79-8]	25	J	mg/L	1	0.25	5.0	250	EPA 300.0	95/10/08 09:45	A)	
Sulfide [18496-25-8]	0.10	U	mg/L	1	0.10	9.10	1	EPA 376.2	05/09/08 08:44	GPW	



Lab Sample ID: C804447-02

Received: 05/06/08 08:30

Matrix: Ground Water

Sampled: 05/05/08 11:10 Sampled By: Gary Simcox Work Order: C804447

Project: White Street Landfill ABP

Classical Chemistry Parameters

Anabria [CAS Number]	Rends	Zee	Make	DE		-	HC SWAL		Anchorad	<u>Ilv</u>	Makes
Iron, Ferrous [NA]	0.042	U	mg/L	1	0.042	0.050		SM18 3500-Fe D	05/07/08 16:23	dps	Q
Total Organic Carbon [NA]	2.2		mg/L	1	0.32	1.0	NE	EPA 415.1	05/07/08 12:28	DPS	



Lab Semple ID: C804447-02

Received: 05/06/08 08:30

Matrice Ground Water

Sampled: 05/05/08 11:10

Work Order: C804447

Project: White Street Landfill ABP

Sampled By: Gary Simcox

Dissolved Gases by GC

 Analyse [CAS Number]
 Results Flor Units
 DF
 MDI.
 MR1.
 MC SWSI.
 Method
 Analyzed
 Rx
 Method

 Methods
 3.40
 mg/L
 1
 0.0004
 0.001
 RSK 175
 05/08/08 13:34
 MYE



Metric: Ground Water

Project: White Street Landfill ABP

Lab Sample ID: C804447-03 Sampled: 05/05/08 12:30

Sampled By: Gary Simcox

Received: 05/06/08 08:30

Work Order: C904447

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Anabda [CAS Number]	Bouds	<u> Zina</u>	منتصلا	DE	MOL	Mel	MC SWSL	Mathed	Anchorad	<u>Br</u>	Notes
Chieride [16067-00-6]	11		mg/L	1	0.25	5.0	NE	EPA 300.0	05/10/08 10:15	A)	
Nitrate as N [14797-55-8] ^	0.010	U	mg/L	1	9.010	0.10	10	EPA 353.2	05/19/08 10:53	PEV	
Nitrate/Nitrite as N [NA] ^	0.022	U	mg/L	1	0.022	0.10	NE	EPA 353.2	05/13/00 12:06	PEV	
Nitrite as N [14797-65-0] ^	0.010	U	mg/L	1	0.010	9.10	1	EPA 353.2	05/06/08 15:45	PEV	
Sulfate as SO4 [14000-79-0]	25	3	mg/L	1	0.25	5.0	250	EPA 300.0	05/10/08 10:15	AJ	
Sulfide [18496-25-8]	0.10	U	mg/L	1	0.10	0.10	1	EPA 376.2	05/09/08 08:44	GPW	



Lab Sample ID: C804447-03

Received: 05/06/08 08:30

Matrix: Ground Water

Sampled: 05/05/08 12:30

Work Order: C804447

Project: White Street Landfill ABP

Sampled By: Gary Simcex

Classical Chemistry Parameters

Analyte [CAS Number]	Reside	Fine Maits	₽£	MDL	MEL	MC SWSL	Mathed	Anshrad	<u>In</u>	Matas
Iron, Perrous [NA]	1.7	mg/L	1	0.042	0.050		SM18 3500-Fe D	05/07/08 16:23	dps	Q
Yotal Organic Carbon [NA]	3.3	mg/L	1	0.32	1.0	NE	EPA 415.1	05/07/08 12:28	DPS	



Lab Sample ID: C804447-03

Received: 05/06/08 08:30

Work Order: C804447

Matrix: Ground Water

Sampled: 05/05/08 12:30

Sampled By: Gary Simcox

Project: White Street Landfili ABP

Dissolved Gases by GC

 Analyte [CAS Number]
 Results Fine Units
 DE MOI.
 MC.EMES.
 Method
 Analyzed
 By Make

 Methode
 2.33
 mg/L
 1
 0.0004
 0.001
 RSK 175
 05/08/08 13:43
 MYE



Lab Sample ID: C804447-04

Received: 05/06/08 08:30

Work Order: C804447

Matrix: Ground Water

Project: White Street Landfill ABP

Sampled: 05/05/08 09:10 Sampled By: Gary Simcox

Classical Chemistry Parameters

Anabda [CAS Number]	Results	Floo	Make	DE.	MOL	Mel	HC RWEL	Hathed	Anabized	B Y	Metec
Chieride [16067-00-6]	4.3	J	mg/L	1	0.25	5.0	NE	EPA 300.0	05/10/08 11:44	A)	
Hitrate as N [14797-55-6] ^	2.2	3	mg/L	1	0.010	0.10	10	EPA 353.2	05/19/06 10:53	PEV	
Mirate/Hitrite as N [NA] ^	2.2	8	mg/L	1	0.022	0.10	NE	EPA 353.2	05/13/06 12:07	PEV	Q8-01
Nitrite as N [14797-65-0] ^	0.010	U	mg/L	1	0.010	0.10	1	EPA 353.2	05/06/08 15:46	PEV	
Sulfate as 904 [14000-79-8]	4.7	3	mg/L	1	0.25	5.0	250	EPA 300.0	05/10/06 11:44	A)	
Sulfide [18496-25-8]	0.10	U	mg/L	1	0.10	0.10	1	EPA 376.2	05/09/08 08:44	GPW	



Lab Sample ID: C804447-04 Sampled: 05/05/08 09:10

Received: 05/06/08 08:30 Work Order: C804447

Matrix: Ground Water Project: White Street Landfill ABP

Sampled By: Gary Simosx

Classical Chemistry Parameters

Annhote [CAS Number]	Rends	Men	<u> Maite</u>	Œ			HC SHREE	Mathed	Analyzed		Mades
Iron, Ferrous [NA]	0.042	U	mg/L	1	0.042	0.050		SM18 3500-Fe D	05/07/08 16:23	dps	Q
Yotal Organic Carbon [NA]	1.3		mg/L	1	0.32	1.0	NE	EPA 415.1	05/07/08 12:28	DPS	



Lab Sample ID: C804447-04

Received: 05/06/08 08:30

Dr Heint

MYE

Metrica Ground Water

Project: White Street Landfill ABP

Sampled: 05/05/08 09:10 Sampled By: Gary Simcox

Work Order: C804447

05/06/08 13:52

RSK 175

Dissolved Gases by GC

Anabda [CAS Number]

 Results
 Flor
 Units
 DF
 MOL
 MRI
 MC SWSI
 Mathed

 0.000
 mg/L
 1
 0.0004
 0.001
 RSK 175



Lab Sample ID: C804447-05

Received: 05/06/08 08:30

Matrix: Ground Water

Sampled: 05/05/08 10:00 Sampled By: Gary Simcox

Work Order: C804447

Project: White Street Landfill ABP

Classical Chemistry Parameters

Analyte (CAS Number)	Remits	Zina	<u> Jámito</u>	DE	MOL	MEL	MC SWEL	Mathed	Analyzad	<u>Br</u>	Notes
Chieride [16867-00-6]	4.8	,	mg/L	1	0.25	5.0	NE	EPA 300.0	05/10/06 12:13	A)	
Nitrate as N [14797-55-8] ^	0.010	U	mg/L	1	0.010	0.10	10	EPA 353.2	05/19/06 10:53	PEV	
Milrate/Milrite as N [NA] ^	0.023	38	mg/L	1	0.822	0.10	NE	EPA 353.2	05/13/08 12:08	PEV	3-01
Mirito as N [14797-45-0] ^	0.20	38	mg/L	1	0.010	0.10	1	EPA 353.2	05/06/08 15:47	PEY	Q8-01
Sulfide (19496-25-8)	0.10	U	mg/L	1	0.10	0.10	1	EPA 376.2	05/09/08 08:44	GPW	



Lab Sample ID: C804447-05

Received: 05/06/08 08:30

Metric: Ground Water

Sampled: 05/05/08 10:00

Work Order: C804447

Project: White Street Landfill ABP

Sampled By: Gary Simcox

Classical Chemistry Parameters

Analyte [CAS Humber]	Remite	Place	<u> Unite</u>	DE	HC.	MRL	MC SWEL	Method	Anabrad		Heles
Iron, Ferrous [NA]	0.042	U	mg/L	1	0.042	0.050		SM18 3500-Fe D	05/07/08 16:23	dps	Q
Total Organic Carbon [NA]	3.1		mg/L	1	0.32	1.0	NE	EPA 415.1	05/07/08 12:28	DPS	



Lab Sample ID: C804447-05

Received: 05/06/08 08:30

Matrix: Ground Water

Sampled: 05/05/08 10:00

Work Order: C804447

Preject: White Street Landfill ABP

Sampled By: Gary Simcox

Dissolved Gases by GC

 Analyte [CAS Number]
 Results Flor tinits
 DF
 MOL MRL MC SWSL.
 Method
 Analyzad
 By
 Hobbs

 Hethane
 0.003
 mg/L
 1
 0.0004
 0.001
 RSK 175
 05/08/08 14:08
 MYE



L

Lab Sample ID: C804447-06

Received: 05/06/08 08:30

Matrix: Ground Water

Sampled: 05/05/08 15:00 Sampled By: Gary Simcox Work Order: CB04447

Preject: White Street Landfill ABP

Classical Chemistry Parameters

Anches (CAS Number)	Results	Plan	Medica	DE	MOL	MRL	HC FWEL	Mathed	Anabrad	æх	Hotes
Chloride [16007-00-6]	6.0		mg/L	<u> </u>	0.25	5.0	NE	EPA 300.0	05/10/08 13:03	A	
Mirate as N [14797-85-8] ^	0.39	3	mg/L	1	0.010	0.10	10	EPA 353.2	05/19/08 10:53	PEV	
Nitrate/Hitrite as N [NA] ^	0.41	B	mg/L	1	0.022	0.10	NE	EPA 353.2	05/13/08 12:08	PEV	Q8-01
Nitrite as N [14797-65-0] ^	0.018	38	mg/L	1	0.010	0.10	1	EPA 353.2	05/06/08 15:48	PEV	3-01
Sulfate as 904 [14008-79-8]	**	J	mg/L	1	0.25	5.0	250	EPA 300.0	95/10/06 13:03	A)	
Sulfide [18496-25-8]	0.10	U	mg/L	1	0.10	0.10	1	EPA 376.2	95/09/08 08:44	GPW	



Lab Sample ID: C804447-06

Received: 05/06/08 06:30

Matrix: Ground Water

Sampled: 05/05/08 15:00

Work Order: C804447

Project: White Street Landfill ABP

Sampled By: Gary Simcox

Classical Chemistry Parameters

Anahrin [CAS Number] Iron, Ferrous [NA]	Recuits 0.042	Flac U	<u>Medite</u> mg/L	DF	MD4. 0.042	0.050	MC SWEL	Mathed SM18 3500-Fe D	Anch/2nd 05/07/00 16:23	B ir dps	<u>Natas</u> Q
Total Organic Carbon [NA]	9.2		mg/L	1	0.32	1.0	NE	EPA 415.1	05/07/08 12:28	DPS	



Lab Sample ID: C804447-06

Received: 05/06/08 08:30

Metric: Ground Water

Sampled: 05/05/08 15:00

Work Order: C804447

Preject: White Street Landfill ABP

Sampled By: Gary Simcox

Dissolved Gases by GC

Anabda (CAS Number) Results Pies Units DF MDL MRL MC.SWSL Method Anabozad By Method October Mrs. 1 0.0004 0.001 RSK 175 05/08/08 16:07 MYE



ical Chemistry Parameters - Quality Control Batch BEOGO23 - NO PREP nk (0506023-BLK1) Prepared: 05/06/2008 13:15 Analyzed: 05/06/2008 15:37 Prepared: 05/06/2008 13:15 Analyzed: 05/06/2008 15:39 LCS (8206023-851) Matrix Spike (\$806023-MS1) Prepared: 05/06/2008 13:15 Analyzed: 05/06/2008 15:41 0.013 Prepared: 05/06/2006 13:15 Analyzed: 95/06/2006 15:42 Metrix Spike Dup (8806023-MSD1) Batch 8209002 - NO PREP Prepared & Analyzed: 05/09/2008 08:44 nk (0000002-BLK1) 0.42 Matrix Spike (8209002-MS1) Prepared & Analyzed: 05/09/2008 08:44 Prepared & Analyzed: 85/09/2008 68:44 Matrix Spike Dup (8509002-HSD1) rce: C001910-01 9.10 U Batch 8E09018 - NO PREP

Prepared: 05/09/2008 14:22 Analyzed: 05/09/2008 23:22

Blank (8509018-BLK1)



Classical Chemistry Parameters - Quality Control

Batch BE09018 - NO PREP

Blank (0000018-BLK1) Continued

Prepared: 05/09/2008 14:22 Analyzed: 05/09/2008 23:22

				j j	eggittaen Nyster	e C	Y.	
Chloride	0.25	Ü	\$.0	mg/L				
Sulfate as \$04	0.25	U	5.0	mg/L				

LCS (8800018-851) Prepared: 05/09/2008 14:22 Analyzed: 05/10/2008 00:21

Chloride	វា	5.0	mg/L	50.0	107 9	B-110	
Sulfate as 904	46	5.0	mg/L	50.0	93 9	D-110	

Matrix Spike (8299018-M51)

Prepared: 05/09/2008 14:22 Analyzed: 05/10/2008 01:21

Source: C001910-01

Matrix Spike Dup (8200018-MSD1)

Source: C001910-01

Prepared: 05/09/2008 14:22 Analyzed: 05/10/2008 01:50

				1.3		- 4	**			
Chiloride	61	5.0	mg/L	50.0	2.8	116	90-110	2	10	QH-13
Sulfate as 904	50	5.0	mg/L	50.0	8.0	94	90-110	3	10	QH-13

Batch 8E11003 - NO PREP

Blank (9E11003-BLK1) Prepared: 05/13/2008 09:00 Analyzed: 05/13/2008 11:28



LCS (8811003-851) Prepared: 05/13/2008 09:00 Analysed: 05/13/2008 11:31

Matrix Spile (9E11003-MS1)

Prepared: 05/13/2008 09:00 Analyzed: 05/13/2008 11:35

Prepared: 05/13/2008 09:00 Analyzed: 05/13/2008 11:37

Bource: C002021-01

Mitrolo/Nitritio as N 1.3 8 0.10 mg/L 1.28 0.004 95 90-120

Matrix Spike Dup (8E11003-MSD1)

Source: C802021-01



Classical Chemistry Parameters - Quality Centrol

Batch 8E11003 - NO PREP

Botch 8E19005 - NO PREP

Blank (9E19005-BLK1)

Prepared: 05/19/2008 07:54 Analyzed: 05/19/2008 10:29



LCS (SE19005-BS1)

Prepared: 05/19/2008 07:54 Analyzed: 05/19/2008 10:29



Matrix Spike (8E19005-MS1)

Prepared: 05/19/2008 07:54 Analyzed: 05/19/2008 10:30

Bource: C004574-02



Matrix Spike Dup (8E19005-MSD1)

Source: C004574-02

Prepared: 05/19/2008 07:54 Analyzed: 05/19/2008 10:31

	seus santa la 1			L				Associated to the second
Chloride	170	3.0	mg/L	100	83	80 80-8	b) 6.3	35

QUALITY CONTROL

Disselved Gases by GC - Quality Central

Bakch BEOGOOZ - NO PREP ANALYTIX

Blank (9899962-BLK1)

Prepared: 05/06/2006 07:46 Analyzed: 05/06/2006 10:46

				est and the second
Methane	9.8004	U 6.001	mg/L	
Ethene	9.001	U 0.002	mg/L	
Ethane	9.0009	U 0.802	mg/L	

LCS (8800002-851)

Prepared: 05/08/2008 07:48 Analyzed: 05/08/2008 10:59

Huthane	0.0020	0.001	mg/L	0.0932	97	68-140	
Ethene	0.156	0.002	mg/L	0.166	95	67-134	
Ethene	0.171	0.002	mg/L	0.176	96	62-153	

Matrix Spike (9890002-HS1)

Source: 8003210-01

Prepared: 05/08/2008 07:48 Analyzed: 05/08/2008 11:08

Hothene	0.0077	9.601	mg/L	0.0952	0.000570	162	68-140	
Ethene	0.164	0.002	mg/L	0.166	9.901 U	99	67-134	
Ethane	9.178	0.002	mg/L	0.178	9.0009 U	100	62-153	



Disselved Gases by GC - Quality Centrel

Boach BEOGOOZ - NO PREP ANALYTIX

Matrix Spike Dup (SE00002-MSD1)

Source: 8803210-01

Prepared: 05/08/2008 07:48 Analyzed: 05/08/2008 11:17

				r e		Ar e se		, v		
Helhane	0.0077	0.001	mg/L	0.09\$2	0.000570	91	68-140	11	19	
Ethene	0.152	0.002	mg/L	0.166	9.001 U	91	67-134	•	19	
Ethane	0.162	0.002	mg/L	0.176	0.0009 U	91	62-153	10	20	

QUALITY CONTROL

Classical Chemistry Parameters - Quality Centrel

Botch BE07008 - NO PREP

Plank (8897996-BLK1)

Prepared: 05/07/2008 10:35 Analyzed: 05/07/2008 12:28



LCS (8807000-861)

Prepared: 05/07/2008 19:35 Analyzed: 05/07/2008 12:28



Matrix Spike (8887000-1451)

Bource: A802457-04

Prepared: 05/07/2008 10:35 Analyzed: 05/07/2008 12:28



Matrix Spike Dup (8207008-HSD1)

lource: A002457-04

Prepared: 05/07/2008 10:35 Analyzed: 05/07/2008 12:28



Batch 8507020 - NO PREP

Blank (9897920-BLK1)

Prepared & Analyzed: 05/07/2008 16:23



LCS (8207020-861

Prepared & Analyzed: 05/07/2008 16:23



Hatrix Spike (8807020-HS1)

Source: A802410-01

Prepared & Analyzed: 05/07/2008 16:23



Classical Chemistry Parameters - Quality Control

Batch BE07020 - NO PREP

Matrix Spike (8207020-MS1) Continued

Prepared & Analyzed: 05/07/2008 16:23

Source: A802410-01

Iron, Perrous 1.5 0.030 mg/L 1.30 0.042 U 103 90-110

Matrix Spike Dup (SE07020-MSD1)

Prepared & Analyzed: 05/07/2008 16:23

Source: A802410-01

Iron, Perrous 1.6 0.050 mg/L 1.50 0.042 U 105 90-116 2 10



PLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
I-01	Result is estimated due to positive results in the associated method blank.
Q	Analysis performed outside of method - specified holding time.
Q 8- 01	The method blank had a positive result for the analyte; however, the concentration in the method blank is less than 10% of the sample result, which minimizes the impact of the deviation.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The betch was accepted based on acceptable LCS recovery.
QM-13	Suspected matrix effects



No. Missign countries of Milloure mensional one AC Februs, ado are acted, in the region of stars, other part after a presidents

Unaccoptable Requested Turnament Note: Alest respects subject to exact results to the ladding £30 Sample Comments Standard Expedited Due _/__/ C804447 ð Times ab Workorder Anti-lene Раде S Accemplable Progression Com Herry Web it \$ HP-431 NO 111 For O (New orders of continuent) SUNTA-1 344 ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD STATE CHAIN-OF-CUSTODY RECORD STATE CHAIN-OF-CUSTODY RECORD STATE CHAIN-OF-CUSTODY RECORD CHAIN-OF-CUSTODY RECORD CHAIN-OF-CUSTODY RECORD CHAIN-OF-CUSTODY RECORD CHAIN-OF-CUSTODY C 200 ç. .. Sail water e, paracei · : ŧ. 74 --- Tolai # of Containers 4 × 182 ٠,-¥ Z-55-5.4 Totala a O Cantarant Math. CW Gunnberfer SD Sel SF Sudvent SW Schut Water WM Contraster A de' O Chrespetal in competer Wates (with cartes) 2.0 Comp. Gast J J 9 J J G (-351 ناعاتهم إنا In paged lig Party & fellowyands ment Careches O V Bang bio Exerci Bulkaby POPERT PARETEM 920 they Centact g S <u>%</u> **≘** 282 24-11 8 0/1/9 30/5/5 5/5/06 80/5/5 3/5/08 5/5/08 5/5/08 Collegion Inco SIME Sample ID IF estil (dentification) INCOS. į ٠. Sample for Proposers By J. 3 11.20 = 7 eder(s) Signature <u>:</u> · == =

APPENDIX II

Laboratory Results Report – Preliminary Screening Of Anaerobic Biodegradation Processes

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Thursday, October 27, 2011

S&ME, Inc. (SM004)

Attn: Edmund Henriques 3718 Old Battleground Rd. Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill App Is (SMWs)

ENCO Workorder: C112116

Dear Edmund Henriques,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, October 11, 2011.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 19.

huck Sunt



SAMPLE SUMMARY/LABORATORY CHRONICLE

Parameter Hold Date/Time(s) Prep Da	Date/Time(s) Analysis Date/Time(s)
EPA 6010C 04/04/12 10/13/11	/11 11:35 10/21/2011 10:25
EPA 6020A 04/04/12 10/19/11	/11 10:00 10/25/2011 14:04
EPA 8260B 10/21/11 10/12/11	/11 13:22 10/13/2011 14:10

Client ID: 4103-SMW3	, ex	lab ID: C112116-02	Sampled:	10/07/11 09:25 Received: 10/11/11 12:20
Parameter	Hold Date/Time(s)	Pr	rep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/04/12	10	0/13/11 11:35	10/21/2011 10:27
EPA 6020A	04/04/12	10	0/19/11 10:00	10/25/2011 14:06
EPA 8260B	10/21/11	10	0/12/11 13:22	10/13/2011 14:39

Client ID: 4103-SMW4	· ·	Lab ID: C112116-03	Sampl	led: 10/07/11 12:40 Received: 10/11/11 12:20
Parameter	Hold Date/Time(s)		Prep Date/Time(s) Analysis Date/Time(s)
EPA 6010C	04/04/12		10/13/11 11:35	10/21/2011 10:29
EPA 6020A	04/04/12		10/19/11 10:00	10/25/2011 14:07
EPA 8260B	10/21/11		10/12/11 13:22	10/13/2011 15:08



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

lient ID: 4103-SMW1	<u> </u>			Lab ID:	C112116-01	4.2		Fine to the second	
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	4.29)	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	114		1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	3.52		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.89	3	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobait - Total	7.70	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	9.63	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.89	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	3.91	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	260		1	3.80	10.0	10	ug/L	EPA 6010C	
lient ID: 4103-SMW3				Lab ID:	C112116-02				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	0.88	j	1	0.080	1.0	5	ug/L	EPA 8260B	
Barium - Total	78.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.44	j	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	1.2	J	1	0.72	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	1.45	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	7.38	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.17	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	12.8	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	9.04	J	1	3.80	10.0	10	ug/L	EPA 6010C	
lient ID: 4103-SMW4				Lab ID:	C112116-03				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	128		1	1.00	10.0	100	ug/L	EPA 6010C	• • • • • • • • • • • • • • • • • • • •
Chromium - Total	1.47	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	5.54	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.30	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	3.57	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	2.57	j	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	8.37	j	1	3.80	10.0	10	ug/L	EPA 6010C	



Received: 10/11/11 12:20 **Work Order:** C112116

ANALYTICAL RESULTS

Description: 4103-SMW1 **Lab Sample ID:** C112116-01

Matrix: Ground Water Sampled: 10/07/11 11:50

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	<u>By</u>	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	10/13/11 14:10	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	10/13/11 14:10	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	5	EPA 8260B	10/13/11 14:10	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	10/13/11 14:10	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/13/11 14:10	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	บ	ug/L	1	0.11	1.0	5	EPA 8260B	10/13/11 14:10	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/13/11 14:10	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/13/11 14:10	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/13/11 14:10	ЗКG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/13/11 14:10	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/13/11 14:10	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	10/13/11 14:10	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	10/13/11 14:10	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	10/13/11 14:10	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/13/11 14:10	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	10/13/11 14:10	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	10/13/11 14:10	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	10/13/11 14:10	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	10/13/11 14:10	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	10/13/11 14:10	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	10/13/11 14:10	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/13/11 14:10	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	10/13/11 14:10	ЭKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/13/11 14:10	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/13/11 14:10	JKG	



Description: 4103-SMW1

Lab Sample ID: C112116-01

Received: 10/11/11 12:20

Matrix: Ground Water

Sampled: 10/07/11 11:50 Sampled By: Gary Simcox Work Order: C112116

Project: White Street Landfill App Is (SMWs)

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/13/11 14:10	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	10/13/11 14:10	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	10/13/11 14:10	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	47	1	50.0	93 %	51	-122	1312021	EPA 8260B	10/13/11 14:10	JKG	
Dibromofluoromethane	46	1	50.0	92 %	68-	-117	1312021	EPA 8260B	10/13/11 14:10	JKG	
Toluene-d8	46	1	50.0	91 %	6 9	-110	1312021	EPA 8260B	10/13/11 14:10	JKG	



 Description: 4103-SMW1
 Lab Sample ID: C112116-01
 Received: 10/11/11 12:20

Matrix: Ground Water Sampled: 10/07/11 11:50 Work Order: C112116

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/25/11 14:04	VLO	
Arsenic [7440-38-2] ^	4.29	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/21/11 10:25	JDH	
Barium [7440-39-3] ^	114		ug/L	1	1.00	10.0	100	EPA 6010C	10/21/11 10:25	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/21/11 10:25	JDH	
Cadmium [7440-43-9] ^	3.52		ug/L	1	0.360	1.00	1	EPA 6010C	10/21/11 10:25	JDH	
Chromium [7440-47-3] ^	1.89	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/21/11 10:25	JDH	
Cobalt [7440-48-4] ^	7.70	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/21/11 10:25	JDH	
Copper [7440-50-8] ^	9.63	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/21/11 10:25	JDH	
Lead [7439-92-1] ^	1.90	υ	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:25	JDH	
Nickel [7440-02-0] ^	2.89	J	υg/L	1	1.80	10.0	50	EPA 6010C	10/21/11 10:25	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	10/25/11 14:04	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:25	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/25/11 14:04	VLO	
Vanadium [7440-62-2] ^	3.91	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/21/11 10:25	JDH	
Zinc [7440-66-6] ^	260		ug/L	1	3.80	10.0	10	EPA 6010C	10/21/11 10:25	JDH	



Description: 4103-SMW3

Matrix: Ground Water

Lab Sample ID: C112116-02

Sampled: 10/07/11 09:25

Sampled By: Gary Simcox

Received: 10/11/11 12:20

Work Order: C112116

Volatile Organic Compounds by GCMS

Project: White Street Landfill App Is (SMWs)

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	<u>By</u>	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	10/13/11 14:39	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	υ	ug/L	1	0.65	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	10/13/11 14:39	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
1,1-Dichloroethane [75-34-3] ^	0.88	J	ug/L	1	0.080	1.0	5	EPA 8260B	10/13/11 14:39	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	10/13/11 14:39	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/13/11 14:39	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	10/13/11 14:39	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/13/11 14:39	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/13/11 14:39	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/13/11 14:39	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/13/11 14:39	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/13/11 14:39	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Bromochioromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	10/13/11 14:39	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	10/13/11 14:39	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	10/13/11 14:39	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/13/11 14:39	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	10/13/11 14:39	JKG	
Chloroethane [75-00-3] ^	0.75	υ	ug/L	1	0.75	1.0	10	EPA 8260B	10/13/11 14:39	JKG	
Chloroform [67-66-3] ^	0.70	υ	ug/L	1	0.70	1.0	5	EPA 8260B	10/13/11 14:39	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/13/11 14:39	JKG JKG	
cis-1,2-Dichloroethene [156-59-2] ^	1.2		ug/L	1	0.72	1.0	5	EPA 8260B	10/13/11 14:39	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U 	ug/L	1	0.63	1.0	3 10	EPA 8260B EPA 8260B	10/13/11 14:39 10/13/11 14:39	JKG	
Dibromomethane [74-95-3] ^	0.90	U 	ug/L	1 1	0.90 0.62	1.0 1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/13/11 14:39	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L ug/L	1	0.14	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Methylene chloride [75-09-2] ^	0.14 0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Styrene [100-42-5] ^ Tetrachloroethene [127-18-4] ^	0.033	U	ug/L	1	0.73	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Toluene [108-88-3] ^	0.75	U	ug/L	1	0.85	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	. U	ug/L	1	0.12	1.0	5	EPA 8260B	10/13/11 14:39	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/13/11 14:39	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/13/11 14:39	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	10/13/11 14:39	JKG	
,			-								



Description: 4103-SMW3

Lab Sample ID: C112116-02

Received: 10/11/11 12:20

Matrix: Ground Water

Sampled: 10/07/11 09:25

Sampled By: Gary Simcox

Work Order: C112116

Project: White Street Landfill App Is (SMWs)

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 2.1	Flag U	<u>Units</u> ug/L	<u>DF</u> 1	<u>MDL</u> 2.1	MRL 3.0	NC SWSL 5	Method EPA 8260B	Analyzed 10/13/11 14:39	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Lii	nits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	47	1	50.0	94 %	51-122	-	1312021	EPA 8260B	10/13/11 14:39	JKG	
Dibromofluoromethane	45	1	50.0	90 %	68-117		1312021	EPA 8260B	10/13/11 14:39	JKG	
Toluene-d8	46	1	50.0	91 %	69-110		1312021	EPA 8260B	10/13/11 14:39	JKG	



Work Order: C112116

Description: 4103-SMW3 **Lab Sample ID:** C112116-02 **Received:** 10/11/11 12:20

Matrix: Ground Water Sampled: 10/07/11 09:25

Project: White Street Landfill App Is (SMWs) **Sampled By:** Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	<u>By</u>	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/25/11 14:06	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/21/11 10:27	JDH	
Barium [7440-39-3] ^	78.4	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/21/11 10:27	JDH	
Beryllium [7440-41-7] ^	0.100	υ	ug/L	1	0.100	1.00	1	EPA 6010C	10/21/11 10:27	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/21/11 10:27	JDH	
Chromium [7440-47-3] ^	3.44	3	ug/L	1	1.00	10.0	10	EPA 6010C	10/21/11 10:27	JDH	
Cobalt [7440-48-4] ^	1.45	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/21/11 10:27	JDH	
Copper [7440-50-8] ^	7.38	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/21/11 10:27	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:27	JDH	
Nickel [7440-02-0] ^	2.17	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/21/11 10:27	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	10/25/11 14:06	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:27	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/25/11 14:06	VLO	
Vanadium [7440-62-2] ^	12.8	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/21/11 10:27	JDH	
Zinc [7440-66-6] ^	9.04	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/21/11 10:27	JDH	



Description: 4103-SMW4 **Lab Sample ID:** C112116-03

Matrix:Ground WaterSampled: 10/07/11 12:40Project:White Street Landfill App Is (SMWs)Sampled By: Gary Simcox

Received: 10/11/11 12:20 **Work Order:** C112116

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL 0.00	MRL 1.0	NC SWSL	Method EPA 8260B	<u>Analyzed</u> 10/13/11 15:08	By JKG	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90 0.65	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1 1	0.65	1.0	3	EPA 8260B	10/13/11 15:08	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L		0.75	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1			5	EPA 8260B	10/13/11 15:08	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U 	ug/L	1	0.080	1.0	5	EPA 8260B	10/13/11 15:08	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	13	EPA 8260B	10/13/11 15:08	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0				JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	10/13/11 15:08	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	10/13/11 15:08		
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	υ	ug/L	1	0.79	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/13/11 15:08	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/13/11 15:08	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/13/11 15:08	JKG	
Acetone [67-64-1] ^	1.2	υ	ug/L	1	1.2	5.0	100	EPA 8260B	10/13/11 15:08	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/13/11 15:08	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	10/13/11 15:08	JKG	
Bromodichloromethane [75-27-4] ^	0.75	υ	ug/L	1	0.75	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	10/13/11 15:08	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	10/13/11 15:08	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/13/11 15:08	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	10/13/11 15:08	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	10/13/11 15:08	JKG	
Chloroform [67-66-3] ^	0.70	υ	ug/L	1	0.70	1.0	5	EPA 8260B	10/13/11 15:08	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	10/13/11 15:08	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	10/13/11 15:08	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	10/13/11 15:08	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	-∌/- ug/L	1	0.62	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
·	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/13/11 15:08	JKG	
Iodomethane [74-88-4] ^ Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
,	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	10/13/11 15:08	JKG	
Styrene [100-42-5] ^	0.73	U	_	1	0.73	1.0	1	EPA 8260B	10/13/11 15:08	ЭKG	
Tetrachloroethene [127-18-4] ^			ug/L	1	0.85	1.0	1	EPA 8260B	10/13/11 15:08	ЭKG	
Toluene [108-88-3] ^	0.85	U	ug/L		0.03	1.0	5	EPA 8260B	10/13/11 15:08	ЭKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1		1.0	1	EPA 8260B	10/13/11 15:08	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U 	ug/L	1	0.50			EPA 8260B	10/13/11 15:08	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/13/11 15:08	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B		JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1		10/13/11 15:08	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/13/11 15:08		
Vinyl chloride {75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	10/13/11 15:08	JKG	



Description: 4103-SMW4

Lab Sample ID: C112116-03

Received: 10/11/11 12:20

Matrix: Ground Water

Sampled: 10/07/11 12:40 Sampled By: Gary Simcox Work Order: C112116

Project: White Street Landfill App Is (SMWs)

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 2.1	<u>Flaq</u> U	<u>Units</u> ug/L	<u>DF</u> 1	MDL 2.1	MRL 3.0	NC SWSL 5	Method EPA 8260B	Analyzed 10/13/11 15:08	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Li	imits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-122	2	1312021	EPA 8260B	10/13/11 15:08	JKG	
Dibromofluoromethane	46	1	50.0	93 %	68-117	7	1312021	EPA 8260B	10/13/11 15:08	JKG	
Toluene-d8	45	1	50.0	90 %	69-110	0	1312021	EPA 8260B	10/13/11 15:08	JKG	



Description: 4103-SMW4

Lab Sample ID: C112116-03

Sampled By: Gary Simcox

Received: 10/11/11 12:20

Matrix: Ground Water

Sampled: 10/07/11 12:40

Work Order: C112116

Project: White Street Landfill App Is (SMWs)

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	<u>MRL</u>	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/25/11 14:07	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/21/11 10:29	HQC	
Barium [7440-39-3] ^	128		ug/L	1	1.00	10.0	100	EPA 6010C	10/21/11 10:29	HOC	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/21/11 10:29	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/21/11 10:29	JDH	
Chromium [7440-47-3] ^	1.47	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/21/11 10:29	JDH	
Cobalt [7440-48-4] ^	5.54	j	ug/L	1	1.10	10.0	10	EPA 6010C	10/21/11 10:29	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/21/11 10:29	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:29	JDH	
Nickel [7440-02-0] ^	3.30	j	ug/L	1	1.80	10.0	50	EPA 6010C	10/21/11 10:29	JDH	
Selenium [7782-49-2] ^	3.57	J	ug/L	1	0.830	1.00	10	EPA 6020A	10/25/11 14:07	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:29	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/25/11 14:07	VLO	
Vanadium [7440-62-2] ^	2.57	3	ug/L	1	1.40	10.0	25	EPA 6010C	10/21/11 10:29	JDH	
Zinc [7440-66-6] ^	8.37	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/21/11 10:29	JDH	



Volatile Organic Compounds by GCMS - Quality Control

Batch 1J12021 - EPA 5030B_MS

Blank (1J12021-BLK1)

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 10:48

Blank (1J12021-BLK1)					Prepare	:a: 10/12/20	11 13:22 Ana	lyzed: 10/13/	2011 10:48		
Análytě	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	υ	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							
					50.0	- -	91	51-122	_		
Surrogate: 4-Bromofluorobenzene	46			ug/L	30.0		71	21-122			



Volatile Organic Compounds by GCMS - Quality Control

Batch 1J12021 - EPA 5030B_MS

Blank (1J12021-BLK1) Continued

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 10:48

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 11:17

Analyte	Result Flag	MRL	Units	Spike Level	Source Result %REC	%REC Limits	RPD	RPD Limit	Notes	
Surrogate: Dibromofluoromethane	45		ug/L	50.0	91	68-117				
Surrogate: Toluene-d8	45		υg/L	50.0	90	<i>69-110</i>				

LCS (1J12021-BS1)

Analyte	Result	Flag MRL	Units	Spike Level	Source Result	%REC	%REC Limits RPD	RPD Limit Notes
1,1-Dichloroethene	18	1.0	ug/L	20.0		92	75-133	
Benzene	18	1.0	ug/L	20.0		92	81-134	
Chlorobenzene	21	1.0	ug/L	20.0		105	83-117	
Toluene	21	1.0	ug/L	20.0		103	71-118	
Trichloroethene	21	1.0	ug/L	20.0		107	75-115	

Matrix Spike (1J12021-MS1)

Source: C112771-02

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 11:46

Analyte	Result	Flag MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	20	1.0	ug/L	20.0	0.60 U	98	75-133			
Benzene	19	1.0	ug/L	20.0	0.68 U	94	81-134			
Chlorobenzene	22	1.0	ug/L	20.0	0.74 U	108	83-117			
Toluene	21	1.0	ug/L	20.0	0.85 U	106	71-118			
Trichloroethene	22	1.0	ug/L	20.0	0.72 U	110	75-115			

Matrix Spike Dup (1J12021-MSD1)

Source: C112771-02

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 12:15

Analyte	Result Flag	MRL	Units	Spike Level	Source Résult	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	19	1.0	ug/L	20.0	0.60 U	95	75-133	3	20	
Benzene	18	1.0	ug/L	20.0	0.68 U	92	81-134	3	17	
Chlorobenzene	21	1.0	ug/L	20.0	0.74 U	105	83-117	2	16	
Toluene	21	1.0	ug/L	20.0	0.85 U	103	71-118	3	17	
Trichloroethene	21	1.0	ug/L	20.0	0.72 U	107	75-115	3	18	

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1J13014 - EPA 3005A

Blank (1J13014-BLK1)

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:02

Analyte	Result	Flag	MŔĹ	Units	Spike Level	Source Result	%REC WREC Limits	RPD	RPD Limit	Notes	
Arsenic	2.80	U	10.0	ug/L	<u> </u>		- 				
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1J13014 - EPA 3005A

Blank (1J13014-BLK1) Continued

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1J13014-BS1)

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:04

(,											
Ànaiyte	Result Flag	MRL	Units	Spike Level	Source Result %REC	%REC Limits	RPC RPD Llmi				
Arsenic	202	10.0	ug/L	200	101	80-120					
Barium	209	10.0	ug/L	200	105	80-120					
Beryllium	20.2	1.00	ug/L	20.0	101	80-120					
Cadmium	21.2	1.00	ug/L	20.0	106	80-120					
Chromium	202	10.0	ug/L	200	101	80-120					
Cobalt	207	10.0	ug/L	200	103	80-120					
Copper	200	10.0	ug/L	200	100	80-120					
Lead	204	10.0	ug/L	200	102	80-120					
Nickel	209	10.0	ug/L	200	104	80-120					
Silver	209	10.0	ug/L	200	104	80-120					
Vanadium	204	10.0	ug/L	200	102	80-120					
Zinc	207	10.0	ug/L	200	104	80-120					

Matrix Spike (1J13014-MS1)

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:09

Source: C112155-01

	* *	-			Spike	Source		%REC		RPD	
Analyte	Result	Flag	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Arsenic	199		10.0	ug/L	200	4.22	97	75-125			
Barium	294		10.0	ug/L	200	90.7	102	75-125			
Beryllium	20.1		1.00	ug/L	20.0	0.264	99	75-125			
Cadmium	21.1		1.00	ug/L	20.0	0.360 U	105	75-125			
Chromium	200		10.0	ug/L	200	1.00 U	100	75-125			
Cobalt	207		10.0	ug/L	200	1.10 U	104	75-125			
Copper	196		10.0	ug/L	200	1.60 U	98	75-125			
Lead	202		10.0	ug/L	200	1.90 U	101	75-125			
Nickel	209		10.0	ug/L	200	1.80 U	105	75-125			
Silver	203		10.0	ug/L	200	1.90 U	102	75-125			
Vanadium	203		10.0	ug/L	200	1.82	101	75-125			
Zinc	214		10.0	ug/L	200	5.72	104	75-125			

Matrix Spike Dup (1J13014-MSD1)

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:11

Source: C112155-01

Analyte	Result	Flag MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	200	10.0	ug/L	200	4.22	98	75-125	0.7	20	
Barium	294	10.0	ug/L	200	90.7	102	75-125	0.2	20	
Beryllium	20.3	1.00	ug/L	20.0	0.264	100	75-125	1	20	
Cadmium	21.2	1.00	ug/L	20.0	0.360 U	106	75-125	0.6	20	
Chromium	201	10.0	ug/L	200	1.00 U	101	75-125	0.8	20	
Cobalt	208	10.0	ug/L	200	1.10 U	104	75-125	0.2	20	



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1313014 - EPA 3005A

Matrix Spike Dup (1J13014-MSD1) Continued

Source: C112155-01

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:11

Analyte Resi	633666	Units	Spike Lêvel	Source Result	%RÉC	%REC Limits	RPD	RPD Limit Notes
Copper 197	10.0	ug/L	200	1.60 U	99	75-125	0.8	20
Lead 20	10.0	ug/L	200	1.90 U	102	75-125	1	20
Nickel 209	10.0	ug/L	200	1.80 U	104	75-125	0.4	20
Silver 209	10.0	ug/L	200	1.90 U	102	75-125	0.6	20
Vanadium 20	10.0	ug/L	200	1.82	101	75-125	0.7	20
Zinc 214	10.0	ug/L	200	5.72	104	75-125	0.1	20

Post Spike (1J13014-PS1)

Source: C112155-01

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:12

Analyte	Result Flag	MRL	Units	Spike Level	Source Résult	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.187	0.0100	mg/L	0.200	0.00422	92	80-120			
Barium	0.275	0.0100	mg/L	0.200	0.0907	92	80-120			
Beryllium	0.0189	0.00100	mg/L	0.0200	0.000264	93	80-120			
Cadmium	0.0198	0.00100	mg/L	0.0200	8.46E-5	98	80-120			
Chromium	0.188	0.0100	mg/L	0.200	0.000933	93	80-120			
Cobalt	0.193	0.0100	mg/L	0.200	0.000420	96	80-120			
Copper	0.182	0.0100	mg/L	0.200	-0.000268	91	80-120			
Lead	0.190	0.0100	mg/L	0.200	-0.000440	95	80-120			
Nickel	0.194	0.0100	mg/L	0.200	0.00111	96	80-120			
Silver	0.189	0.0100	mg/L	0.200	0.000457	94	80-120			
Vanadium	0.190	0.0100	mg/L	0.200	0.00182	94	80-120			
Zinc	0.200	0.0100	mg/L	0.200	0.00572	97	80-120			

Batch 1J18032 - EPA 3005A

Blank (1J18032-BLK1)

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit Notes
Antimony	0.220	U	2.00	ug/L					
Selenium	0.830	U	1.00	ug/L					
Thallium	0.110	- 11	1.00	uo/I					

LCS (1J18032-BS1)		Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:46										
Analyte	Result Flag	MŘĹ	Ünits	Spike Level	Source Result %REC	%REC Limits	RPD RPD Limit Notes					
Antimony	205	2.00	ug/L	200	103	80-120						
Selenium	221	1.00	ug/L	200	111	80-120						
Thallium	206	1.00	ug/L	200	103	80-120						

Matrix Spike (1J18032-MS1)

Source: C112115-01

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:49

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:44

Analyte	Result Fla	ag MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	206	2.00	ug/L	200	0.220 U	103	75-125			
Selenium	216	1.00	ug/L	200	3.59	106	75-125			



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1J18032 - EPA 3005A

Matrix Spike (1J18032-MS1) Continued

Source: C112115-01

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:49

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits RPI	RPD Limit	Notes
Thallium	192	1.00	ug/L	200	0.154	96	75-125		

Matrix Spike Dup (1J18032-MSD1)

Source: C112115-01

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:50

Analyte	Result Flag	MŘĹ	Ünits	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	205	2.00	ug/L	200	0.220 U	103	75-125	0.5	20	
Selenium	218	1.00	ug/L	200	3.59	107	75-125	0.9	20	
Thallium	191	1.00	ug/L	200	0.154	96	75-125	0.4	20	

Post Spike (1J18032-PS1)

Source: C112115-01

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:51

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC		RPD	RPD Limit	Notes
Antimony	207	2.00	ug/L	200	0.139	104	80-120			
Selenium	214	1.00	ug/L	200	3.59	105	80-120			
Thallium	185	1.00	ug/L	200	0.154	93	80-120			



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
Е	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.



·		Orlambu, FL. 12024 (407) 826-5314 Fax (-	Orbinin, FL 321724 (407) 824-5314 Fax (407) 850-6945	50-6945	Jacksmintle, 11 (904) 296-3007	Jauksmindle, 11 32216-6069 (904) 286-3007 Tex (904) 296-6210		. <u>19</u> <u>2</u>	Cory, NC 27511 (919) 467-3090 Fax (919) 467-3515	15	Page of
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Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Thursday, October 27, 2011

S&ME, Inc. (SM004)

Attn: Edmund Henriques 3718 Old Battleground Rd. Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill App Is

ENCO Workorder: C112115

Dear Edmund Henriques,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, October 11, 2011.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 19.



SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 4103-II3B		Lab ID: C112115-01	Sampled: 1	10/07/11 10:35 R	leceived: 10/11/11 12:20
Parameter	Hold Date/Time(s)	Prep Da	ite/Time(s)	Analysis Date/Ti	ne(s)
EPA 6010C	04/04/12	10/13/1:	11:35	10/21/2011 10:16	
EPA 6020A	04/04/12	10/19/1	10:00	10/25/2011 13:47	

Client ID: 4103-II3B		Lab ID: C112115-01RE1 Sampled:	10/07/11 10:35 Received: 10/11/11 12:20
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	10/21/11	10/17/11 11:17	10/17/2011 13:42

Client ID: 4103-II9		Lab ID: C112115-02	Sampled:	10/07/11 08:10	Received: 1	0/11/11 12:20
Parameter	Hold Date/Time(s)	Prep Date/	Time(s)	Analysis Da	te/Time(s)	
EPA 6010C	04/04/12	10/13/11	11:35	10/21/2011	10:23	
EPA 6020A	04/04/12	10/19/11	10:00	10/25/2011	13:54	
EPA 8260B	10/21/11	10/12/11	13:22	10/13/2011	13:41	



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 4103-II38			,	Lab ID:	C112115-01			1.4.8	1 + 20 + 4
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	202		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	7.42	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	7.05	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.62	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	8.29	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	3.59	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Thallium - Total	0.154	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	8.23	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	5.78	J	1	3.80	10.0	10	ug/L	EPA 6010C	
lient ID: 4103-II3B				Lab ID:	C112115-01R	E1			1 2 x 24
Analida	Danilla.			Man		110 011101	** **		

Client ID:	4103-II3B				Lab ID:	C112115-01	LRE1		Sept.	i la salaja
Analyte		Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroe		 0.88	j	1	0.080	1.0	5	ug/L	EPA 8260B	

Client ID: 4103-II9				Lab ID:	C112115-02			5 4 C	• /
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	5.8	• • • • • • •	1	0.080	1.0	5	ug/L	EPA 8260B	
Barium - Total	78.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	1.05		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	4.13	3	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	16		1	0.72	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	6.38	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	9.54	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.37	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.25	j	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	1.95	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	9.48	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	0.69	J	1	0.60	1.0	1	ug/L	EPA 8260B	
Zinc - Total	62.0		1	3.80	10.0	10	ug/L	EPA 6010C	



ANALYTICAL RESULTS

Description: 4103-II3B

Matrix: Ground Water

Project: White Street Landfill App Is

Lab Sample ID: C112115-01

Sampled: 10/07/11 10:35

Sampled By: Gary Simcox

Received: 10/11/11 12:20

Work Order: C112115

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
1,1,1,2-Tetrachioroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	10/17/11 13:42	jkg	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	υ	ug/L	1	0.75	1.0	3	EPA 8260B	10/17/11 13:42	jkg	
1,1,2-Trichloroethane [79-00-5] ^	0.66	υ	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
1,1-Dichloroethane [75-34-3] ^	0.88	J	ug/L	1	0.080	1.0	5	EPA 8260B	10/17/11 13:42	jkg	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	10/17/11 13:42	jkg	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/17/11 13:42	jkg	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
1,2-Dichlorobenzene [95-50-1] ^	0.11	υ	ug/L	1	0.11	1.0	5	EPA 8260B	10/17/11 13:42	jkg	
1,2-Dichloroethane [107-06-2] ^	0.47	υ	ug/L	1	0.47	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/17/11 13:42	jkg	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/17/11 13:42	jkg	
4-Methyl-2-pentanone [108-10-1] ^	1.1	υ	ug/L	1	1.1	5.0	100	EPA 8260B	10/17/11 13:42	jkg	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/17/11 13:42	jkg	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/17/11 13:42	jkg	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	10/17/11 13:42	jkg	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	10/17/11 13:42	jkg	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	10/17/11 13:42	jkg	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/17/11 13:42	jkg	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	10/17/11 13:42	jkg	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	10/17/11 13:42	jkg	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	10/17/11 13:42	jkg	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	5	EPA 8260B	10/17/11 13:42	jkg	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	3	EPA 8260B	10/17/11 13:42	jkg	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	10	EPA 8260B	10/17/11 13:42	jkg	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/17/11 13:42	jkg	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Styrene [100-42-5] ^	0.053	υ	ug/L	1	0.053	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	5	EPA 8260B	10/17/11 13:42	jkg	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/17/11 13:42	jkg	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/17/11 13:42	jkg	



Work Order: C112115

Description: 4103-II3B **Lab Sample ID:** C112115-01 **Received:** 10/11/11 12:20

Matrix: Ground WaterSampled: 10/07/11 10:35

Project: White Street Landfill App Is Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/17/11 13:42	jkg	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1	EPA 8260B	10/17/11 13:42	jkg	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	5	EPA 8260B	10/17/11 13:42	jkg	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	49	1	50.0	98 %	51	122	1317003	EPA 8260B	10/17/11 13:42	jkg	
Dibromofluoromethane	50	1	50.0	100 %	68	117	1317003	EPA 8260B	10/17/11 13:42	jkg	
Toluene-d8	52	1	50.0	105 %	69-	110	1317003	EPA 8260B	10/17/11 13:42	jkg	



Description: 4103-II3B

Lab Sample ID: C112115-01 **Sampled:** 10/07/11 10:35

Received: 10/11/11 12:20

Work Order: C112115

Project: White Street Landfill App Is

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Matrix: Ground Water

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>D</u> F	<u>MDL</u>	<u>MRL</u>	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/25/11 13:47	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/21/11 10:16	JDH	
Barium [7440-39-3] ^	202		ug/L	1	1.00	10.0	100	EPA 6010C	10/21/11 10:16	JOH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/21/11 10:16	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/21/11 10:16	JDH	
Chromium [7440-47-3] ^	7.42	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/21/11 10:16	JDH	
Cobalt [7440-48-4] ^	7.05	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/21/11 10:16	JDH	
Copper [7440-50-8] ^	2.62	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/21/11 10:16	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:16	JDH	
Nickel [7440-02-0] ^	8.29	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/21/11 10:16	JDH	
Selenium [7782-49-2] ^	3.59	J	ug/L	1	0.830	1.00	10	EPA 6020A	10/25/11 13:47	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:16	JDH	
Thallium [7440-28-0] ^	0.154	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/25/11 13:47	VLO	
Vanadium [7440-62-2] ^	8.23	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/21/11 10:16	JDH	
Zinc [7440-66-6] ^	5.78	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/21/11 10:16	JDH	



Description: 4103-II9 **Matrix:** Ground Water

Matrix:Ground WaterSampled: 10/07/11 08:10Project:White Street Landfill App IsSampled By: Gary Simcox

Lab Sample ID: C112115-02

Received: 10/11/11 12:20

Work Order: C112115

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	5	EPA 8260B	10/13/11 13:41	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	3	EPA 8260B	10/13/11 13:41	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
1,1-Dichloroethane [75-34-3] ^	5.8		ug/L	1	0.080	1.0	5	EPA 8260B	10/13/11 13:41	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	5	EPA 8260B	10/13/11 13:41	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/13/11 13:41	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	10/13/11 13:41	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/13/11 13:41	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/13/11 13:41	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/13/11 13:41	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/13/11 13:41	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/13/11 13:41	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	3	EPA 8260B	10/13/11 13:41	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	3	EPA 8260B	10/13/11 13:41	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	10	EPA 8260B	10/13/11 13:41	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/13/11 13:41	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	3	EPA 8260B	10/13/11 13:41	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	10	EPA 8260B	10/13/11 13:41	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	5	EPA 8260B	10/13/11 13:41	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L 	1	0.55	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	16		ug/L	1	0.72	1.0	5 1	EPA 8260B EPA 8260B	10/13/11 13:41 10/13/11 13:41	JKG JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U 	ug/L	1	0.075	1.0	3	EPA 8260B	10/13/11 13:41	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U 	ug/L	1	0.63 0.90	1.0	10	EPA 8260B	10/13/11 13:41	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.62	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Ethylbenzene [100-41-4] ^	0.62	U 	ug/L	1	1.7	5.0	10	EPA 8260B	10/13/11 13:41	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.053	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.73	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Tetrachloroethene [127-18-4] ^ Toluene [108-88-3] ^	0.73 0.85	U	ug/L ug/L	1	0.85	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.03	U	ug/L	1	0.12	1.0	5	EPA 8260B	10/13/11 13:41	JKG	
•	0.50	U	ug/L	1	0.50	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^ trans-1,4-Dichloro-2-butene [110-57-6] ^	0.30	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/13/11 13:41	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	Ü	ug/L	1	0.66	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/13/11 13:41	JKG	
Vinyl chloride [75-01-4] ^	0.69	3	ug/L	1	0.60	1.0	1	EPA 8260B	10/13/11 13:41	JKG	
Amily culoting [12-01-4]	7.03	,	ug/L	•	5.00	1.0	•		,,		



Description: 4103-II9

Lab Sample ID: C112115-02

Received: 10/11/11 12:20

Matrix: Ground Water

Sampled: 10/07/11 08:10

Work Order: C112115

Project: White Street Landfill App Is

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 2.1	Flag U	<u>Units</u> ug/L	DF	<u>MDL</u> 2.1	MRL 3.0	NC SWSL 5	Method EPA 8260B	Analyzed 10/13/11 13:41	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	47	1	50.0	94 %	51-	122	1312021	EPA 8260B	10/13/11 13:41	JKG	
Dibromofluoromethane	44	1	50.0	<i>87 %</i>	68-	117	1312021	EPA 8260B	10/13/11 13:41	JKG	
Toluene-d8	45	1	50.0	90 %	<i>69-</i> .	110	1312021	EPA 8260B	10/13/11 13:41	JKG	



 Description:
 4103-II9
 Lab Sample ID: C112115-02
 Received:
 10/11/11 12:20

 Matrix:
 Ground Water
 Sampled:
 10/07/11 08:10
 Work Order:
 C112115

Project: White Street Landfill App Is Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/25/11 13:54	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/21/11 10:23	JDH	
Barium [7440-39-3] ^	78.4	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/21/11 10:23	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/21/11 10:23	JDH	
Cadmium [7440-43-9] ^	1.05		ug/L	1	0.360	1.00	1	EPA 6010C	10/21/11 10:23	JDH	
Chromium [7440-47-3] ^	4.13	3	ug/L	1	1.00	10.0	10	EPA 6010C	10/21/11 10:23	JDH	
Cobalt [7440-48-4] ^	6.38	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/21/11 10:23	JDH	
Copper [7440-50-8] ^	9.54	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/21/11 10:23	JDH	
Lead [7439-92-1] ^	2.37	3	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:23	JDH	
Nickel [7440-02-0] ^	3.25	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/21/11 10:23	JDH	
Selenium [7782-49-2] ^	1.95	3	ug/L	1	0.830	1.00	10	EPA 6020A	10/25/11 13:54	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/21/11 10:23	JOH	
Thallium [7440-28-0] ^	0.110	υ	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/25/11 13:54	VLO	
Vanadium [7440-62-2] ^	9.48	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/21/11 10:23	HOC	
Zinc [7440-66-6] ^	62.0		ug/L	1	3.80	10.0	10	EPA 6010C	10/21/11 10:23	JDH	



Volatile Organic Compounds by GCMS - Quality Control

Batch 1J12021 - EPA 5030B_MS

Blank (1J12021-BLK1)

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 10:48

		<u> </u>	nde-		Spike	Source		%REC	DDC	RPD	Name of the last
Analyte	Result 0.90	Flag U	MRL 1.0	Units ug/L	Level	Result	%REC	Limits	RPD	Limit	Notes
1,1,1,2-Tetrachloroethane		U	1.0								
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75 0.66	U	1.0	ug/L ug/L							
1,1,2-Trichloroethane 1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Toluene	0.85	บ	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	46	_		ug/L	50.0		91	51-122			



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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1J12021 - EPA 5030B_MS

Blank (1J12021-BLK1) Continued

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 10:48

Analyte	Result	Flag MRL	Units	Spike	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Surrogate: Dibromofluoromethane	45		ug/L	50.0		91	68-117				
Surrogate: Toluene-d8	45		ug/L	50.0		90	69-110				

LCS (1J12021-BS1)				Prepared: 10/12/20	011 13:22 Anal	yzed: 10/13/2011 11:1	17	
Analyte	Result Flag	MRL	Units	Spike Source Level Result	%REC	%REC Limits RPD	RPD Limit	Notes
1,1-Dichloroethene	18	1.0	ug/L	20.0	92	75-133		
Benzene	18	1.0	ug/L	20.0	92	81-134		
Chlorobenzene	21	1.0	ug/L	20.0	105	83-117		
Toluene	21	1.0	ug/L	20.0	103	71-118		
Trichloroethene	21	1.0	ug/L	20.0	107	75-115		

Matrix Spike (1J12021-MS1)

Source: C112771-02

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 11:46

Prepared: 10/12/2011 13:22 Analyzed: 10/13/2011 12:15

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	20		1.0	ug/L	20.0	0.60 U	98	75-133			
Benzene	19		1.0	ug/L	20.0	0.68 U	94	81-134			
Chlorobenzene	22		1.0	ug/L	20.0	0.74 U	108	83-117			
Toluene	21		1.0	ug/L	20.0	0.85 U	106	71-118			
Trichloroethene	22		1.0	ug/L	20.0	0.72 U	110	75-115			

Matrix Spike Dup (1J12021-MSD1)

Source: C112771-02

Analyte 1,1-Dichloroethene Benzene Chlorobenzene Toluene

Trichloroethene

				Spike	Source		%REC		RPD	
Result	Flag	MRL	Units	Level	Source Result	%REC	Limits	RPD	Limit	Notes
 19		1.0	ug/L	20.0	0.60 U	95	75-133	3	20	
18		1.0	ug/L	20.0	0.68 U	92	81-134	3	17	
21		1.0	ug/L	20.0	0.74 U	105	83-117	2	16	
21		1.0	ug/L	20.0	0.85 U	103	71-118	3	17	

0.72 U

20.0

ug/L

Batch 1J13020 - EPA 5030B_MS

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1.0

Blank (1J13020-BLK1)

Prepared: 10/13/2011 12:35 Analyzed: 10/13/2011 23:49

75-115

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L		-				
1,1,1-Trichloroethane	0.65	U	1.0	ug/L						
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L						
1,1,2-Trichloroethane	0.66	U	1.0	ug/L						
1,1-Dichloroethane	0.080	U	1.0	ug/L						
1,1-Dichloroethene	0.60	U	1.0	ug/L						
1,2,3-Trichloropropane	0.72	U	1.0	ug/L						
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L						
1,2-Dibromoethane	0.66	U	1.0	ug/L						
1,2-Dichlorobenzene	0.11	U	1.0	ug/L						



Volatile Organic Compounds by GCMS - Quality Control

Batch 1J13020 - EPA 5030B_MS

Blank (1J13020-BLK1) Continued

Prepared: 10/13/2011 12:35 Analyzed: 10/13/2011 23:49

[大學] [1] [1] [1] [1] [1] [1] [1] [1] [1] [1		. 14 . 4			1, 19, 11	Spike	Source	17.77 (44.17)	%REC	n, gradij	RPD.	
1,4-Octionspropene	Analyte	Result	Flag	MRL	Units	1 1 2 To 1 1 To 1		%REC		7724		Notes
1,4-Ochloroberatore 0,79 U 1,0 togle. 1.5 U 5.0 ugle. 1.5 U 1.0	1,2-Dichloroethane	0.47	U	1.0	ug/L					•		
2-Heannore 1.3	1,2-Dichloropropane	0.59	U	1.0	ug/L							
2-Heannene	1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
4-Methyl-2-parlamone 1.1 U 5.0 ugh.	2-Butanone	1.3	U	5.0	ug/L							
Acetonic Included 1.2 U 5.0 Ugh. Acryonici Included 3.5 U 1.0 ugh. Included Included <td< td=""><td>2-Hexanone</td><td>0.88</td><td>U</td><td>5.0</td><td>ug/L</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	2-Hexanone	0.88	U	5.0	ug/L							
Arrylontrine	4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Benzene 0,68 U 1,0 ug/L Bromodichiomerhane 0,77 U 1,0 ug/L Bromodichiomerhane 0,75 U 1,0 ug/L Bromoferm 0,68 U 1,0 ug/L Bromonerhane 0,58 U 1,0 ug/L Carbon disulfide 1,5 U 1,0 ug/L Chromothane 0,59 U 1,0 ug/L Chromothane 0,74 U 1,0 ug/L Chromothane 0,75 U 1,0 ug/L Chromothane 0,75 U 1,0 ug/L Chromothane 0,75 U 1,0 ug/L Si-1,3-Dichlorenthene 0,75 U 1,0 ug/L Dibromochioromethane 0,63 U 1,0 ug/L Ethyloperune 0,62 U 1,0 ug/L Ethyloperune 0,1 U 1,0 ug/L Ethyloperu	Acetone	1.2	U	5.0	ug/L							
Bromodiforomehane 0,87 0 10 ug/L Bromodiforomehane 0,75 0 1,0 ug/L Bromofehane 0,68 0 1,0 ug/L Bromomehane 0,88 0 1,0 ug/L Carbon disulfide 1,5 0 5,0 ug/L Chloroberage 0,74 0 1,0 ug/L Chloroberage 0,75 0 1,0 ug/L Chloroberage	Acrylonitrile	3.5	U	10	ug/L							
Bromodichloromethene 0.75 U 1.0 ug/L Bromofem 0.68 U 1.0 ug/L Corbon disulfide 1.5 U 5.0 ug/L Carbon disulfide 1.5 U 1.0 ug/L Chiorobharene 0.74 U 1.0 ug/L Chiorobharene 0.75 U 1.0 ug/L Chioroform 0.70 U 1.0 ug/L Chiorobharene 0.75 U 1.0 ug/L Chioroform 0.70 U 1.0 ug/L Chioromethane 0.75 U 1.0 ug/L G51,2-Dichloroptene 0.75 U 1.0 ug/L Ebromonthane 0.75 U 1.0 ug/L Ebromonthane 0.075 U 1.0 ug/L Ebromonthane 0.63 U 1.0 ug/L Elyberrene 0.62 U 1.0 ug/L Elyberrene </td <td>Benzene</td> <td>0.68</td> <td>U</td> <td>1.0</td> <td>ug/L</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Benzene	0.68	U	1.0	ug/L							
Bromoform 0.68 U 1.0 ug/L Bromonehane 0.58 U 1.0 ug/L Carbon disulfide 1.5 U 5.0 ug/L Chiorabenzere 0.69 U 1.0 ug/L Chiorabenzere 0.74 U 1.0 ug/L Chiorabenzere 0.75 U 1.0 ug/L Chiorabenzere 0.75 U 1.0 ug/L Chiorabenzere 0.75 U 1.0 ug/L Chiorabenzere 0.72 U 1.0 ug/L Gs-1,2-Dichloropropene 0.075 U 1.0 ug/L Dibromochiomethane 0.72 U 1.0 ug/L Dibromochiomethane 0.62 U 1.0 ug/L Ethylbenzere 0.62 U 1.0 ug/L Syrane 0.73 U 1.0 ug/L Strain-1,-1-Dichloroptopene 0.12 U 1.0 ug/L	Bromochloromethane	0.87	U	1.0	ug/L							
Bromomethane 1.5	Bromodichloromethane	0.75	U	1.0	ug/L							
Carbon disulfide 1.5 U 5.0 ug/L Carbon tetrachloride 0.69 U 1.0 ug/L Chlorobenzene 0.74 U 1.0 ug/L Chlorobenzene 0.75 U 1.0 ug/L Chloroform 0.70 U 1.0 ug/L Chlorobenzene 0.55 U 1.0 ug/L Chlorobenzene 0.55 U 1.0 ug/L Chlorobenzene 0.55 U 1.0 ug/L Chlorobenzene 0.72 U 1.0 ug/L Cis-1,2-Dichloropropene 0.75 U 1.0 ug/L Dibromochloromethane 0.63 U 1.0 ug/L Dibromochloromethane 0.63 U 1.0 ug/L Chlorobenzene 0.63 U 1.0 ug/L Chlorobenzene 0.63 U 1.0 ug/L Chlorobenzene 0.64 U 1.0 ug/L Chlorobenzene 0.65 U 1.0 ug/L Chlorobenzene 0.66 U 1.0 ug/L	Bromoform	0.68	υ	1.0	ug/L							
Carbon tetrachloriode 0.69 U 1.0 Ug/L Chlorobehnzene 0.74 U 1.0 Ug/L Chlorobehnzene 0.75 U 1.0 Ug/L Chlorobehnzene 0.75 U 1.0 Ug/L Chloromethane 0.55 U 1.0 Ug/L Cis-1,3-Dichloropropene 0.72 U 1.0 Ug/L Cis-1,3-Dichloropropene 0.72 U 1.0 Ug/L Cis-1,3-Dichloropropene 0.75 U 1.0 Ug/L Cibrybenzene 0.63 U 1.0 Ug/L Cibrybenzene 0.62 U 1.0 Ug/L Cibrybenzene 0.62 U 1.0 Ug/L Cibrybenzene 0.63 U 1.0 Ug/L Cibrybenzene 0.64 U 1.0 Ug/L Cibrybenzene 0.65 U 1.0 Ug/L Cibrybenzene 0.66 U 1.0 U	Bromomethane	0.58	U	1.0	ug/L							
Chiorobenzene 0.74	Carbon disulfide	1.5	U	5.0	ug/L							
Chloroethane 0.75 U 1.0 ug/L Chloroform 0.70 U 1.0 ug/L Chloromethane 0.55 U 1.0 ug/L Chloromethane 0.55 U 1.0 ug/L Cis-1,2-Dichloroethene 0.72 U 1.0 ug/L Dibromochloromethane 0.63 U 1.0 ug/L Dibromochloromethane 0.63 U 1.0 ug/L Dibromochloromethane 0.64 U 1.0 ug/L Dibromochloromethane 0.65 U 1.0 ug/L Ethyloexene 0.62 U 1.0 ug/L Styrene 1.7 U 5.0 ug/L Styrene 0.053 U 1.0 ug/L Styrene 0.053 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Tetrachloroethene 0.70 U 1.0 ug/L Tetrachloroethene 0.85 U 1.0 ug/L Tetras-1,3-Dichloropropene 0.50 U 1.0 ug/L Trans-1,3-Dichloropropene 0.50 U 1.0 ug/L Trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.70 U 1.0 ug/L	Carbon tetrachloride	0.69	u	1.0	ug/L							
Chlorofform 0.70 U 1.0 Ug/L Chloromethane 0.55 U 1.0 Ug/L Chloromethane 0.55 U 1.0 Ug/L Cis-1,3-Dichloroethene 0.72 U 1.0 Ug/L Dibromochloromethane 0.63 U 1.0 Ug/L Dibromochloromethane 0.63 U 1.0 Ug/L Dibromochloromethane 0.64 U 1.0 Ug/L Chloromethane 0.65 U 1.0 Ug/L Styrene 0.65 U 1.0 Ug/L Styrene 0.65 U 1.0 Ug/L Tetrachloroethene 0.73 U 1.0 Ug/L Tetrachloroethene 0.73 U 1.0 Ug/L Toluene 0.85 U 1.0 Ug/L Toluene 0.85 U 1.0 Ug/L Trans-1,2-Dichloropopene 0.50 U 1.0 Ug/L Trans-1,4-Dichloropopene 0.50 U 1.0 Ug/L Trichloroethene 0.72 U 1.0 Ug/L Trichloroethene 0.72 U 1.0 Ug/L Trichloroethene 0.75 U 1.0 Ug/L Trichloroethene 0.76 U 1.0 Ug/L Trichloroethene 0.77 U 1.0 Ug/L Trichloroethene 0.78 U 1.0 Ug/L Trichloroethene 0.79 U 1.0 Ug/L Trichloroethene 0.70 U 1.0 Ug/L Tr	Chiorobenzene	0.74	U	1.0	ug/L							
Chloromethane 0.55	Chloroethane	0.75	U	1.0	ug/L							
cis-1,2-Dichloroethene 0.72 U 1.0 ug/L cis-1,3-Dichloropropene 0.075 U 1.0 ug/L Dibromochloromethane 0.63 U 1.0 ug/L Ethylbenzene 0.62 U 1.0 ug/L Ethylbenzene 0.62 U 1.0 ug/L Styrene 0.14 U 1.0 ug/L Styrene 0.03 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Toluene 0.85 U 1.0 ug/L Trans-1,2-Dichloroethene 0.12 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Vinyl acetate 0.66 U 1.0 ug/L	Chloroform	0.70	U	1.0	ug/L							
cis-1,3-Dichloropropene 0.075 U 1.0 ug/L U Log	Chloromethane	0.55	U	1.0	ug/L							
Dibromochloromethane 0.63	cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
Dibromomethane 0.90	cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Ethylbenzene 0.62 U 1.0 ug/L Iodomethane 1.7 U 5.0 ug/L Methylene chloride 0.14 U 1.0 ug/L Styrene 0.053 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Toluene 0.85 U 1.0 ug/L trans-1,2-Dichloroethene 0.12 U 1.0 ug/L trans-1,4-Dichloropropene 0.50 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Surrogate: 4-Bromofluorobenzene 36 Ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53	Dibromochloromethane	0.63	U	1.0	ug/L							
Iodomethane 1.7 U 5.0 ug/L Methylene chloride 0.14 U 1.0 ug/L Styrene 0.053 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Toluene 0.85 U 1.0 ug/L trans-1,2-Dichloroethene 0.12 U 1.0 ug/L trans-1,3-Dichloropropene 0.50 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.99 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluoroberuene 53 U 2.0 91 51-122 Surrogate: Dibromofluoromethane 53	Dibromomethane	0.90	U	1.0	ug/L							
Methylene chloride 0.14 U 1.0 ug/L Styrene 0.053 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Toluene 0.85 U 1.0 ug/L trans-1,2-Dichloroethene 0.12 U 1.0 ug/L trans-1,3-Dichloropropene 0.50 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L 50.0 91 51-122 Surrogate: Pibromofluoromethane 53 U 2.0 50.0 106 68-117	Ethylbenzene	0.62	U	1.0	ug/L							
Styrene 0.053 U 1.0 ug/L Tetrachloroethene 0.73 U 1.0 ug/L Toluene 0.85 U 1.0 ug/L trans-1,2-Dichloroethene 0.12 U 1.0 ug/L trans-1,3-Dichloropropene 0.50 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acteate 0.95 U 5.0 ug/L Vinyl choide 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 Ug/L 50.0 91 51-122 Surrogate: Otbromofluoromethane 53 Ug/L 50.0 106 68-117	Iodomethane	1.7	U	5.0	ug/L							
Tetrachloroethene 0.73 U 1.0 ug/L Toluene 0.85 U 1.0 ug/L trans-1,2-Dichloroethene 0.12 U 1.0 ug/L trans-1,3-Dichloropropene 0.50 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 Ug/L 50.0 91 51-122 Surrogate: 1-Bromofluoromethane 53 Ug/L 50.0 106 68-117	Methylene chloride	0.14	U	1.0	ug/L							
Toluene 0.85 U 1.0 Ug/L trans-1,2-Dichloroethene 0.12 U 1.0 Ug/L trans-1,3-Dichloropropene 0.50 U 1.0 Ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 Ug/L Trichloroethene 0.72 U 1.0 Ug/L Trichloroethene 0.66 U 1.0 Ug/L Trichlorofluoromethane 0.66 U 1.0 Ug/L Vinyl acetate 0.95 U 5.0 Ug/L Vinyl chloride 0.60 U 1.0 Ug/L Xylenes (Total) 2.1 U 3.0 Ug/L Surrogate: 4-Bromofluorobenzene 46 Ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 U 5.0 Ug/L 50.0 106 68-117	Styrene	0.053	u	1.0	ug/L							
trans-1,2-Dichloroethene 0.12 U 1.0 ug/L trans-1,3-Dichloropropene 0.50 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 Ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 U 5.0 Ug/L 50.0 106 68-117	Tetrachloroethene	0.73	u	1.0	ug/L							
trans-1,3-Dichloropropene 0.50 U 1.0 ug/L trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichlorofluoromethane 0.72 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	Toluene	0.85	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene 0.70 U 1.0 ug/L Trichloroethene 0.72 U 1.0 ug/L Trichloroffluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
Trichloroethene 0.72 U 1.0 ug/L Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
Trichlorofluoromethane 0.66 U 1.0 ug/L Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Vinyl acetate 0.95 U 5.0 ug/L Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	Trichloroethene	0.72	U	1.0	ug/L							
Vinyl chloride 0.60 U 1.0 ug/L Xylenes (Total) 2.1 U 3.0 ug/L Surrogate: 4-Bromofluorobenzene 46 Ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 Ug/L 50.0 106 68-117	Trichlorofluoromethane	0.66	U	1.0	ug/L							
Xylenes (Total) 2.1 U 3.0 ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	Vinyl acetate	0.95	U	5.0	ug/L							
Surrogate: 4-Bromofluorobenzene 46 ug/L 50.0 91 51-122 Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	Vinyl chloride	0.60	U	1.0	ug/L							
Surrogate: Dibromofluoromethane 53 ug/L 50.0 106 68-117	Xylenes (Total)	2.1	U	3.0								
·	Surrogate: 4-Bromofluoroberzene	46			ug/L	50.0	-	91	51-122	-		
Surrogate: Toluene-d8 49 ug/L 50.0 97 69-110	Surrogate: Dibromofluoromethane	53			ug/L	50.0		106	68-117			
	Surrogate: Toluene-d8	49			ug/L	50.0		97	69-110			

LCS (1J13020-BS1)

Prepared: 10/13/2011 12:35 Analyzed: 10/14/2011 00:19

Analyte	Result Flag	MRL	Units	Spike Sou Level Res		%REC Limits	RPD RPD Limit	Notes
1,1-Dichloroethene	17	1.0	ug/L	20.0	86	75-133		
Benzene	17	1.0	ug/L	20.0	87	81-134		
Chlorobenzene	20	1.0	ug/L	20.0	100	83-117		
Toluene	20	1.0	ug/L	20.0	100	71-118		



Volatile Organic Compounds by GCMS - Quality Control

Batch 1J13020 - EPA 5030B_MS

LCS (1J13020-BS1) Continued

Prepared: 10/13/2011 12:35 Analyzed: 10/14/2011 00:19

Analyte	Result Flag	MRL	Units	Spike Sourc Level Resul	4	%REC Limits	RPD	RPD Limit	Notes
Trichloroethene	21	1.0	ug/L	20.0	105	75-115			

Matrix Spike (1J13020-MS1)

Source: C112771-09

Prepared: 10/13/2011 12:35 Analyzed: 10/14/2011 00:48

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	19	1.0	ug/L	20.0	0.60 U	93	75-133			
Benzene	19	1.0	ug/L	20.0	0.68 U	96	81-134			
Chlorobenzene	21	1.0	ug/L	20.0	0.74 U	107	83-117			
Toluene	23	1.0	ug/L	20.0	0.85 U	117	71-118			
Trichloroethene	22	1.0	ug/L	20.0	0.72 U	112	75-115			

Matrix Spike Dup (1J13020-MSD1)

Source: C112771-09

Prepared: 10/13/2011 12:35 Analyzed: 10/14/2011 01:17

			4 50	Spike	Source		%REC	1	RPD	
Result	Flag	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
18		1.0	ug/L	20.0	0.60 U	92	75-133	1	20	
18		1.0	ug/L	20.0	0.68 U	91	81-134	5	17	
20		1.0	ug/L	20.0	0.74 U	102	83-117	5	16	
21		1.0	ug/L	20.0	0.85 U	105	71-118	11	17	
22		1.0	ug/L	20.0	0.72 U	108	75-115	3	18	
	18 18 20 21	18 18 20 21	18 1.0 18 1.0 20 1.0 21 1.0	Result Flag MRL Units 18 1.0 ug/L 18 1.0 ug/L 20 1.0 ug/L 21 1.0 ug/L	Result Flag MRL Units Level 18 1.0 ug/L 20.0 18 1.0 ug/L 20.0 20 1.0 ug/L 20.0 21 1.0 ug/L 20.0	Result Flag MRL Units Level Result 18 1.0 ug/L 20.0 0.60 U 18 1.0 ug/L 20.0 0.68 U 20 1.0 ug/L 20.0 0.74 U 21 1.0 ug/L 20.0 0.85 U	Result Flag MRL Units Level Result %REC 18 1.0 ug/L 20.0 0.60 U 92 18 1.0 ug/L 20.0 0.68 U 91 20 1.0 ug/L 20.0 0.74 U 102 21 1.0 ug/L 20.0 0.85 U 105	Result Flag MRL Units Level Result %REC Limits 18 1.0 ug/L 20.0 0.60 U 92 75-133 18 1.0 ug/L 20.0 0.68 U 91 81-134 20 1.0 ug/L 20.0 0.74 U 102 83-117 21 1.0 ug/L 20.0 0.85 U 105 71-118	Result Flag MRL Units Level Result %REC Limits RPD 18 1.0 ug/L 20.0 0.60 U 92 75-133 1 18 1.0 ug/L 20.0 0.68 U 91 81-134 5 20 1.0 ug/L 20.0 0.74 U 102 83-117 5 21 1.0 ug/L 20.0 0.85 U 105 71-118 11	Result Flag MRL Units Level Result %REC Limits RPD Limit 18 1.0 ug/L 20.0 0.60 U 92 75-133 1 20 18 1.0 ug/L 20.0 0.68 U 91 81-134 5 17 20 1.0 ug/L 20.0 0.74 U 102 83-117 5 16 21 1.0 ug/L 20.0 0.85 U 105 71-118 11 17

Batch 1J17003 - EPA 5030B_MS

Blank (1J17003-BLK1)

Prepared: 10/17/2011 08:22 Analyzed: 10/17/2011 11:14

					Spike	Source		%REC		RPD	
Analyte	Result	Flag	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L						· · ·	
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	υ	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	υ	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	υ	1.0	ug/L							
1,2-Dichloroethane	0.47	υ	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	υ	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							



Volatile Organic Compounds by GCMS - Quality Control

Batch 1J17003 - EPA 5030B_MS

Blank (1J17003-BLK1) Continued

Prepared: 10/17/2011 08:22 Analyzed: 10/17/2011 11:14

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromoform	0.68	U	1.0	υg/L		-					
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	υ	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	49			ug/L	50.0		98	51-122			
Surrogate: Dibromofluoromethane	49			ug/L	50.0		98	68-117			
Surrogate: Toluene-d8	53			ug/L	50.0		107	69-110			

LCS (1J17003-BS1)

Prepared: 10/17/2011 08:22 Analyzed: 10/17/2011 11:44

Analyte	Result Flag	MRL	Units	Spike Level	Source Résult %REC	%REC Limits	RPD RPD Limit	Notes
1,1-Dichloroethene	19	1.0	ug/L	20.0	96	75-133		
Benzene	22	1.0	ug/L	20.0	109	81-134		
Chlorobenzene	18	1.0	ug/L	20.0	90	83-117		
Toluene	16	1.0	ug/L	20.0	80	71-118		
Trichloroethene	19	1.0	ug/L	20.0	95	75-115		

Matrix Spike (1J17003-MS1)

Source: C112996-01

Prepared: 10/17/2011 08:22 Analyzed: 10/17/2011 12:13

Analyte	Result Flag	MRL	Units	Spike Level	Source - Result	%REC	%REC Limits	RPD Limit	Notes
1,1-Dichloroethene	20	1.0	ug/L	20.0	0.60 U	99	75-133		
Benzene	22	1.0	ug/L	20.0	-1.0	117	81-134		
Chlorobenzene	19	1.0	ug/L	20.0	0.74 U	93	83-117		
Toluene	18	1.0	ug/L	20.0	0.85 U	88	71-118		
Trichloroethene	20	1.0	ug/L	20.0	0.72 U	102	75-115		



Volatile Organic Compounds by GCMS - Quality Control

Batch 1J17003 - EPA 5030B_MS

Matrix Spike Dup (1J17003-MSD1)

Source: C112996-01

Prepared: 10/17/2011 08:22 Analyzed: 10/17/2011 12:43

Analyte	Result F	ag MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	19	1.0	ug/L	20.0	0.60 U	95	75-133	4	20	
Benzene	23	1.0	ug/L	20.0	-1.0	118	81-134	0.4	17	
Chlorobenzene	18	1.0	ug/L	20.0	0.74 U	92	83-117	1	16	
Toluene	17	1.0	ug/L	20.0	0.85 U	85	71-118	4	17	
Trichloroethene	19	1.0	ug/L	20.0	0.72 U	97	75-115	5	18	

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1J13014 - EPA 3005A

Blank (1313014-BLK1)

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:02

			,,		.,						
Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	υ	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1J13014-BS1)

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:04

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Analyte	Résult Fla	g MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	202	10.0	ug/L	200		101	80-120			
Barium	209	10.0	ug/L	200		105	80-120			
Beryllium	20.2	1.00	ug/L	20.0		101	80-120			
Cadmium	21.2	1.00	ug/L	20.0		106	80-120			
Chromium	202	10.0	ug/L	200		101	80-120			
Cobalt	207	10.0	ug/L	200		103	80-120			
Copper	200	10.0	ug/L	200		100	80-120			
Lead	204	10.0	ug/L	200		102	80-120			
Nickel	209	10.0	ug/L	200		104	80-120			
Silver	209	10.0	ug/L	200		104	80-120			
Vanadium	204	10.0	ug/L	200		102	80-120			
Zinc	207	10.0	ug/L	200		104	80-120			

Matrix Spike (1J13014-MS1)

Source: C112155-01

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:09

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Notes
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Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1J13014 - EPA 3005A

Matrix Spike (1J13014-MS1) Continued

Source: C112155-01

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:09

Analyte	Result Flag	. i	Units	Spike	Source Result	%REC	%REC Limits	RPD	Nama
		MRL		Level				RPD Limit	Notes
Arsenic	199	10.0	ug/L	200	4.22	97	75-125		
Barium	294	10.0	ug/L	200	90.7	102	75-125		
Beryllium	20.1	1.00	ug/L	20.0	0.264	99	75-125		
Cadmium	21.1	1.00	ug/L	20.0	0.360 ป	105	75-125		
Chromium	200	10.0	ug/L	200	1.00 U	100	75-125		
Cobalt	207	10.0	ug/L	200	1.10 U	104	75-125		
Copper	196	10.0	ug/L	200	1.60 U	98	75-125		
Lead	202	10.0	ug/L	200	1.90 U	101	75-125		
Nickel	209	10.0	ug/L	200	1.80 U	105	75-125		
Silver	203	10.0	ug/L	200	1.90 U	102	75-125		
Vanadium	203	10.0	ug/L	200	1.82	101	75-125		
Zinc	214	10.0	ug/L	200	5.72	104	75-125		

Matrix Spike Dup (1J13014-MSD1)

Source: C112155-01

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:11

					Spike	Source	24.	%REC Limits		RPD	
Analyte	Result	Flag	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Arsenic	200		10.0	ug/L	200	4.22	98	75-125	0.7	20	
Barium	294		10.0	ug/L	200	90.7	102	75-125	0.2	20	
Beryllium	20.3		1.00	ug/L	20.0	0.264	100	75-125	1	20	
Cadmium	21.2		1.00	ug/L	20.0	0.360 U	106	75-125	0.6	20	
Chromium	201		10.0	ug/L	200	1.00 U	101	75-125	0.8	20	
Cobalt	208		10.0	ug/L	200	1.10 U	104	75-125	0.2	20	
Copper	197		10.0	ug/L	200	1.60 U	99	75-125	0.8	20	
Lead	205		10.0	ug/L	200	1.90 U	102	75-125	1	20	
Nickel	209		10.0	ug/L	200	1.80 U	104	75-125	0.4	20	
Silver	205		10.0	ug/L	200	1.90 U	102	75-125	0.6	20	
Vanadium	205		10.0	ug/L	200	1.82	101	75-125	0.7	20	
Zinc	214		10.0	ug/L	200	5.72	104	75-125	0.1	20	

Post Spike (1J13014-PS1)

Source: C112155-01

Prepared: 10/13/2011 11:35 Analyzed: 10/21/2011 10:12

	17-	12:	41	Spike	Source		%REC		RPD	
Analyte	Result Flag	MRL	Units	Level	Source Result	%REC	%REC Limits	RPD	Limit	Notes
Arsenic	0.187	0.0100	mg/L	0.200	0.00422	92	80-120			
Barium	0.275	0.0100	mg/L	0.200	0.0907	92	80-120			
Beryllium	0.0189	0.00100	mg/L	0.0200	0.000264	93	80-120			
Cadmium	0.0198	0.00100	mg/L	0.0200	8.46E-5	98	80-120			
Chromium	0.188	0.0100	mg/L	0.200	0.000933	93	80-120			
Cobalt	0.193	0.0100	mg/L	0.200	0.000420	96	80-120			
Copper	0.182	0.0100	mg/L	0.200	-0.000268	91	80-120			
ead	0.190	0.0100	mg/L	0.200	-0.000440	95	80-120			
Nicket	0.194	0.0100	mg/L	0.200	0.00111	96	80-120			
Silver	0.189	0.0100	mg/L	0.200	0.000457	94	80-120			
/anadium	0.190	0.0100	mg/L	0.200	0.00182	94	80-120			
Zinc	0.200	0.0100	mg/L	0.200	0.00572	97	80-120			



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1J13014 - EPA 3005A

Batch 1J18032 - EPA 3005A

Blank (1J18032-BLK1)

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:44

Analyte	 Result	Flag	MRL	Units	Spike Lével	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	 0.220	U	2.00	ug/L			•	-			
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (1J18032-BS1)

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:46

Analyte	Result Flag	MRL	Units	Spike Level	Source Result %REC	%REC Limits	RPD Limit	Notes
Antimony	205	2.00	ug/L	200	103	80-120		
Selenium	221	1.00	ug/L	200	111	80-120		
Thallium	206	1.00	ug/L	200	103	80-120		

Matrix Spike (1J18032-MS1)

Source: C112115-01

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:49

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	206		2.00	ug/L	200	0.220 U	103	75-125			
Selenium	216		1.00	ug/L	200	3.59	106	75-125			
Thallium	192		1.00	ug/L	200	0.154	96	75-125			

Matrix Spike Dup (1J18032-MSD1)

Source: C112115-01

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:50

1	:				Spike Level	Source	31,73	%REC		RPD	
Analyte	Result	Flag I	MRL	Units	Level	Source Résult	%REC	Limits	RPD	Limit	Notes
Antimony	205		2.00	ug/L	200	0.220 U	103	75-125	0.5	20	
Selenium	218		1.00	ug/L	200	3.59	107	75-125	0.9	20	
Thallium	191		1.00	ug/L	200	0.154	96	75-125	0.4	20	

Post Spike (1J18032-PS1)

Source: C112115-01

Prepared: 10/19/2011 10:00 Analyzed: 10/25/2011 13:51

Analyte	Result	Flag MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	207	2.00	ug/L	200	0.139	104	80-120			
Selenium	214	1.00	ug/L	200	3.59	105	80-120			
Thallium	185	1.00	ug/L	200	0.154	93	80-120			



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.



(0)	(407) 026-5314 Fax (407) 850-6945	7) 850-6945	(904) 296-3007 Fax (904) 2	(904) 296-3007 Fax (904) 296-6210		Cary, NC 27511 (919) 467-3090 Fux (919) 467-3515	5	Page) of I
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Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Thursday, August 12, 2010

S&ME, Inc. (SM004)

Attn: Connel Ware

3718 Old Battleground Rd. Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill App Is (SMWs)

ENCO Workorder: C009061

Dear Connel Ware,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, August 4, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)



SAMPLE SUMMARY/LABORATORY CHRONICLE

Lab ID: (009061-01 Sampled: 08/0	02/10 13:40 Received: 08/04/10 11:15
Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
01/29/11	08/05/10 09:48	8/10/2010 14:32
01/29/11	08/05/10 14:22	8/10/2010 12:01
08/16/10	08/06/10 12:56	8/6/2010 23:17
	Hold Date/Time(s) 01/29/11 01/29/11	Hold Date/Time(s) Prep Date/Time(s) 01/29/11 08/05/10 09:48 01/29/11 08/05/10 14:22

3 Lab ID:	C009061-02 Sampled: 08/	02/10 12:40 Received: 08/04/10 11:15
Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
01/29/11	08/05/10 09:48	8/10/2010 14:35
01/29/11	08/05/10 14:22	8/10/2010 12:04
08/16/10	08/06/10 12:56	8/6/2010 22:16
	Hold Date/Time(s) 01/29/11 01/29/11	Hold Date/Time(s) Prep Date/Time(s) 01/29/11 08/05/10 09:48 01/29/11 08/05/10 14:22

Client ID: 4	LAB ID: COO9	0061-03 Sampled: 08/	02/10 11:30 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	01/29/11	08/05/10 09:48	8/10/2010 14:38
EPA 6020A	01/29/11	08/05/10 14:22	8/10/2010 12:08
EPA 8260B	08/16/10	08/06/10 12:56	8/6/2010 22:47

Client ID: 4103-Trip	Biank Lab	ID: C009061-04	10 11:30 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	08/16/10	08/06/10 12:56	8/6/2010 21:46



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

lient ID: 4103-SMW1	3			Lab ID:	C009061-01			企业社会 通	File was
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	4.07	j	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	144		1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	1.78		1	0.360	1.00	1	ug/L	EPA 6010C	
Chloromethane	0.40	J	1	0.34	1.0	1	ug/L	EPA 8260B	
Chromium - Total	2.06	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	15.5		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	11.9		1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	1.86	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	9.30	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	96.8		1	3.80	10.0	10	ug/L	EPA 6010C	
ent ID: 4103-SMW3	16 % +1 % +1 		1.1美	Lab ID:	C009061-02	eli companyone eli companyone			14 /4 12 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	4.2	J	1	0.33	1.0	5	ug/L	EPA 8260B	
Acetone	3.0	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Barium - Total	228		1	1.00	10.0	100	ug/L	EPA 6010C	
Chloromethane	0.44	J	1	0.34	1.0	1	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	6.9		1	0.36	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	3.12	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.66	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	3.15	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	0.49	J	1	0.30	1.0	1	ug/L	EPA 8260B	
Zinc - Total	5.90	J	1	3.80	10.0	10	ug/L	EPA 6010C	
lejt (D. 4103-SMW4		4.14.674		Lab ID:	C009061-03				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	178		1	1.00	10.0	100	ug/L	EPA 6010C	
Cobalt - Total	4.55	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.28	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	9.47	J	1	0.830	1.00	10	ug/L	EPA 6020A	
/anadium - Total	2.14	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	7.60	J	1	3.80	10.0	10	ug/L	EPA 6010C	



ANALYTICAL RESULTS

 Description:
 4103-SMW1
 Lab Sample ID: C009061-01
 Received: 08/04/10 11:15

 Matrix:
 Ground Water
 Sampled: 08/02/10 13:40
 Work Order: C009061

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	08/06/10 23:17	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/06/10 23:17	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 23:17	ЭKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	08/06/10 23:17	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	08/06/10 23:17	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/06/10 23:17	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/06/10 23:17	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	08/06/10 23:17	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	08/06/10 23:17	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 23:17	ЭKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	08/06/10 23:17	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	08/06/10 23:17	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	08/06/10 23:17	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	08/06/10 23:17	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 23:17	JKG	
Chloroform (67-66-3) ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
Chloromethane [74-87-3] ^	0.40	נ	ug/L	1	0.34	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Dibromochloromethane [124-48-1] ^	0.32	u	ug/L	1	0.32	1.0	3	EPA 8260B	08/06/10 23:17	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	08/06/10 23:17	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	08/06/10 23:17	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	08/06/10 23:17	ЭKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 23:17	JKG	



Description: 4103-SMW1

Lab Sample ID: C009061-01 **Sampled:** 08/02/10 13:40

Received: 08/04/10 11:15

Matrix: Ground Water

Project: White Street Landfill App Is (SMWs)

Sampled By: Gary Simcox

mpled: 08/02/10 13:40 Work Order: C009061

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	Notes
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	08/06/10 23:17	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 23:17	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 23:17	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	41	1	50.0	81 %	51-	122	0H06023	EPA 8260B	08/06/10 23:17	JKG	
Dibromofluoromethane	43	1	50.0	<i>87 %</i>	68-	117	0H06023	EPA 8260B	08/06/10 23:17	JKG	
Toluene-d8	43	1	50.0	<i>85 %</i>	<i>69</i>	110	0H06023	EPA 8260B	08/06/10 23:17	JKG	



 Description:
 4103-SMW1
 Lab Sample ID: C009061-01
 Received: 08/04/10 11:15

 Matrix:
 Ground Water
 Sampled: 08/02/10 13:40
 Work Order: C009061

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

aled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/10/10 12:01	VLO	
Arsenic [7440-38-2] ^	4.07	j	ug/L	1	2.80	10.0	10	EPA 6010C	08/10/10 14:32	JDH	
Barium [7440-39-3] ^	144		ug/L	1	1.00	10.0	100	EPA 6010C	08/10/10 14:32	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	08/10/10 14:32	JDH	
Cadmium [7440-43-9] ^	1.78		ug/L	1	0.360	1.00	1	EPA 6010C	08/10/10 14:32	JDH	
Chromium [7440-47-3] ^	2.06	J	ug/L	1	1.00	10.0	10	EPA 6010C	08/10/10 14:32	JDH	
Cobalt [7440-48-4] ^	15.5		ug/L	1	1.10	10.0	10	EPA 6010C	08/10/10 14:32	JDH	
Copper [7440-50-8] ^	11.9		ug/L	1	1.60	10.0	10	EPA 6010C	08/10/10 14:32	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/10/10 14:32	JDH	
Nickel [7440-02-0] ^	1.86	J	ug/L	1	1.80	10.0	50	EPA 6010C	08/10/10 14:32	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/10/10 12:01	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/10/10 14:32	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/10/10 12:01	VLO	
Vanadium [7440-62-2] ^	9.30	J	ug/L	1	1.40	10.0	25	EPA 6010C	08/10/10 14:32	JDH	
Zinc [7440-66-6] ^	96.8		ug/L	1	3.80	10.0	10	EPA 6010C	08/10/10 14:32	JDH	



 Description:
 4103-SMW3
 Lab Sample ID: C009061-02

 Matrix:
 Ground Water
 Sampled: 08/02/10 12:40

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Received: 08/04/10 11:15

Work Order: C009061

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 22:16	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	08/06/10 22:16	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
1,1-Dichloroethane [75-34-3] ^	4.2	j	ug/L	1	0.33	1.0	5	EPA 8260B	08/06/10 22:16	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	08/06/10 22:16	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/06/10 22:16	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	υ	ug/L	1	0.42	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	08/06/10 22:16	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/06/10 22:16	ЗКG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
2-Butanone [78-93-3] ^	1.0	U	υg/L	1	1.0	5.0	100	EPA 8260B	08/06/10 22:16	JKG	
2-Hexanone [591-78-6] ^	0.69	U	υg/L	1	0.69	5.0	50	EPA 8260B	08/06/10 22:16	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/06/10 22:16	JKG	
Acetone [67-64-1] ^	3.0	J	ug/L	1	1.5	5.0	100	EPA 8260B	08/06/10 22:16	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	08/06/10 22:16	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	08/06/10 22:16	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	08/06/10 22:16	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	08/06/10 22:16	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	08/06/10 22:16	ЗКG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	i	0.27	1.0	3	EPA 82608	08/06/10 22:16	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 82608	08/06/10 22:16	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	08/06/10 22:16	JKG	
Chloromethane [74-87-3] ^	0.44	j	ug/L	1	0.34	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	6.9		ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 22:16	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	08/06/10 22:16	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	08/06/10 22:16	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	08/06/10 22:16	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 22:16	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	08/06/10 22:16	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	08/06/10 22:16	JKG	
Vinyl chloride [75-01-4] ^	0.49	j	ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 22:16	JKG	
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Description: 4103-SMW3

Lab Sample ID: C009061-02

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/02/10 12:40

Work Order: C009061 Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Project: White Street Landfill App Is (SMWs)

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.40	Flag U	<u>Units</u> ug/L	DF 1	MDL 0.40	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 08/06/10 22:16	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec L	imits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluoroberizene	41	1	50.0	82 %	51-12	?2	0H06023	EPA 8260B	08/06/10 22:16	JKG	
Dibromofluoromethane	43	1	50.0	<i>85</i> %	68-11	17	0H06023	EPA 8260B	08/06/10 22:16	JKG	
Toluene-d8	43	1	50.0	<i>85</i> %	69-11	0	0H06023	EPA 8260B	08/06/10 22:16	JKG	



 Description:
 4103-SMW3
 Lab Sample ID: C009061-02
 Received: 08/04/10 11:15

Matrix: Ground WaterSampled: 08/02/10 12:40Work Order: C009061

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
Antimony [7440-36-0] ^	0.220	υ	ug/L	1	0.220	2.00	6	EPA 6020A	08/10/10 12:04	VLO	
Arsenic [7440-38-2] ^	2.80	υ	ug/L	1	2.80	10.0	10	EPA 6010C	08/10/10 14:35	JDH	
Barium [7440-39-3] ^	228		ug/L	1	1.00	10.0	100	EPA 6010C	08/10/10 14:35	JDH	
Beryllium [7440-41-7] ^	0.100	υ	ug/L	1	0.100	1.00	1	EPA 6010C	08/10/10 14:35	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	08/10/10 14:35	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	08/10/10 14:35	JDH	
Cobalt [7440-48-4] ^	3.12	J	ug/L	1	1.10	10.0	10	EPA 6010C	08/10/10 14:35	JDH	
Copper [7440-50-8] ^	1.66	J	ug/L	1	1.60	10.0	10	EPA 6010C	08/10/10 14:35	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/10/10 14:35	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	08/10/10 14:35	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	08/10/10 12:04	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/10/10 14:35	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/10/10 12:04	VLO	
Vanadium [7440-62-2] ^	3.15	J	ug/L	1	1.40	10.0	25	EPA 6010C	08/10/10 14:35	JDH	
Zinc [7440-66-6] ^	5.90	j	ug/L	1	3.80	10.0	10	EPA 6010C	08/10/10 14:35	JDH	



 Description:
 4103-SMW4
 Lab Sample ID: C009061-03

 Matrix:
 Ground Water
 Sampled: 08/02/10 11:30

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Received: 08/04/10 11:15

Work Order: C009061

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 22:47	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 82608	08/06/10 22:47	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	08/06/10 22:47	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	08/06/10 22:47	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	08/06/10 22:47	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/06/10 22:47	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	08/06/10 22:47	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	08/06/10 22:47	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	08/06/10 22:47	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/06/10 22:47	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/06/10 22:47	JKG	
Acrylonitrile [107-13-1] ^	2.1	υ	ug/L	1	2.1	10	200	EPA 8260B	08/06/10 22:47	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	08/06/10 22:47	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	08/06/10 22:47	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	08/06/10 22:47	JKG	
Carbon disulfide [75-15-0] ^	0.54	υ	ug/L	1	0.54	5.0	100	EPA 8260B	08/06/10 22:47	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	08/06/10 22:47	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 22:47	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	08/06/10 22:47	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 22:47	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	08/06/10 22:47	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	08/06/10 22:47	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	08/06/10 22:47	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 22:47	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	08/06/10 22:47	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 22:47	JKG	
Vinyl acetate (108-05-4) ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	08/06/10 22:47	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 22:47	JKG	



Description: 4103-SMW4

Lab Sample ID: C009061-03 **Sampled:** 08/02/10 11:30

Received: 08/04/10 11:15

Matrix: Ground Water

Project: White Street Landfill App Is (SMWs)

Sampled By: Gary Simcox

Work Order: C009061

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.40	Flag V	<u>Units</u> ug/L	DE 1	MDL 0.40	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 08/06/10 22:47	By JKG	Notes
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Li	mits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	41	1	50.0	83 %	51-122	?	0H06023	EPA 8260B	08/06/10 22:47	JKG	
Dibromofluoromethane	43	1	50.0	<i>85</i> %	68-117	7	0H06023	EPA 8260B	08/06/10 22:47	JKG	
Toluene-d8	43	1	50.0	<i>86</i> %	69-110)	0H06023	EPA 8260B	08/06/10 22:47	JKG	



Description: 4103-SMW4

Matrix: Ground Water

Lab Sample ID: C009061-03 **Sampled:** 08/02/10 11:30

Received: 08/04/10 11:15 **Work Order:** C009061

Project: White Street Landfill App Is (SMWs)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	08/10/10 12:08	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	08/10/10 14:38	JDH	
Barium [7440-39-3] ^	178		ug/L	1	1.00	10.0	100	EPA 6010C	08/10/10 14:38	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	08/10/10 14:38	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	08/10/10 14:38	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	08/10/10 14:38	JDH	
Cobalt [7440-48-4] ^	4.55	j	ug/L	1	1.10	10.0	10	EPA 6010C	08/10/10 14:38	JOH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	08/10/10 14:38	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/10/10 14:38	JDH	
Nickel [7440-02-0] ^	4.28	J	ug/L	1	1.80	10.0	50	EPA 6010C	08/10/10 14:38	JDH	
Selenium [7782-49-2] ^	9.47	J	ug/L	1	0.830	1.00	10	EPA 6020A	08/10/10 12:08	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	08/10/10 14:38	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	08/10/10 12:08	VLO	
Vanadium [7440-62-2] ^	2.14	j	ug/L	1	1.40	10.0	25	EPA 6010C	08/10/10 14:38	JDH	
Zinc [7440-66-6] ^	7.60	j	ug/L	1	3.80	10.0	10	EPA 6010C	08/10/10 14:38	JDH	



 Description:
 4103-TripBlank
 Lab Sample ID: C009061-04
 Received: 08/04/10 11:15

 Matrix:
 Water
 Sampled: 08/02/10 11:30
 Work Order: C009061

Project: White Street Landfill App Is (SMWs) Sampled By: ENCO

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>D</u> E	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 21:46	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	08/06/10 21:46	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	08/06/10 21:46	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	08/06/10 21:46	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	08/06/10 21:46	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	08/06/10 21:46	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	08/06/10 21:46	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	08/06/10 21:46	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	08/06/10 21:46	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	08/06/10 21:46	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	08/06/10 21:46	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	08/06/10 21:46	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	08/06/10 21:46	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	08/06/10 21:46	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	08/06/10 21:46	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	08/06/10 21:46	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 21:46	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	08/06/10 21:46	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 21:46	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	08/06/10 21:46	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	08/06/10 21:46	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	08/06/10 21:46	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	υ	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 21:46	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	08/06/10 21:46	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	08/06/10 21:46	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	08/06/10 21:46	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 21:46	JKG	



Description: 4103-TripBlank

Lab Sample ID: C009061-04

Received: 08/04/10 11:15

Matrix: Water

Sampled: 08/02/10 11:30

Work Order: C009061

Project: White Street Landfill App Is (SMWs)

Sampled By: ENCO

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.40	Flag U	<u>Units</u> ug/L	DF	MDL 0.40	MRL 1.0	NC SWSL	Method EPA 8260B	Analyzed 08/06/10 21:46	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec L	imits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	41	1	50.0	83 %	51-12	?2	0H06023	EPA 8260B	08/06/10 21:46	JKG	
Dibromofluoromethane	40	1	50.0	81 %	68-11	17	0H06023	EPA 8260B	08/06/10 21:46	JKG	
Toluene-d8	41	1	50.0	83 %	69-11	10	0H06023	EPA 8260B	08/06/10 21:46	JKG	



Volatile Organic Compounds by GCMS - Quality Control

Batch 0H06023 - EPA 5030B_MS

Blank (0H06023-BLK1)

Prepared: 08/06/2010 11:29 Analyzed: 08/06/2010 14:06

BISIN (UNUOU23-BLK1)	Correlated C			Vý pribatilitika.	Silio Source PAREC RPD
Analyte	Result	Flag	MRL	Units	Level Result %REC Limits RPD Limit Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L	
1,1,1-Trichloroethane	0.27	U	1.0	ug/L	
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L	
1,1,2-Trichloroethane	0.37	U	1.0	ug/L	
1,1-Dichloroethane	0.33	U	1.0	ug/L	
1,1-Dichloroethene	0.24	U	1.0	ug/L	
1,2,3-Trichloropropane	0.55	U	1.0	ug/L	
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L	
1,2-Dibromoethane	0.42	U	1.0	ug/L	
1,2-Dichlorobenzene	0.27	U	1.0	ug/L	
1,2-Dichloroethane	0.65	U	1.0	ug/L	
1,2-Dichloropropane	0.20	U	1.0	ug/L	
1,4-Dichlorobenzene	0.38	U	1.0	ug/L	
2-Butanone	1.0	U	5.0	ug/L	
2-Hexanone	0.69	U	5.0	ug/L	
4-Methyl-2-pentanone	1.1	U	5.0	ug/L	
Acetone	1.5	U	5.0	ug/L	
Acrylonitrile	2.1	U	10	ug/L	
Benzene	0.20	U	1.0	ug/L	
Bromochloromethane	0.42	U	1.0	ug/L	
Bromodichloromethane	0.37	U	1.0	ug/L	
Bromoform	0.71	U	1.0	ug/L	
Bromomethane	0.49	U	1.0	ug/L	
Carbon disulfide	0.54	U	5.0	ug/L	
Carbon tetrachloride	0.38	U	1.0	ug/L	
Chlorobenzene	0.27	U	1.0	ug/L	
Chloroethane	0.30	U	1.0	ug/L	
Chloroform	0.20	U	1.0	ug/L	
Chloromethane	0.34	U	1.0	ug/L	
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L	
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L	
Dibromochloromethane	0.32	U	1.0	ug/L	
Dibromomethane	0.37	U	1.0	ug/L	
Ethylbenzene	0.20	U	1.0	ug/L	
Iodomethane	0.52	U	5.0	ug/L	
Methylene chloride	0.53	U	1.0	ug/L	
Styrene	0.26	U	1.0	ug/L	
Tetrachioroethene	0.36	U	1.0	ug/L	
Toluene	0.27	U	1.0	ug/L	
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L	
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L	
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L	
Trichloroethene	0.38	U	1.0	ug/L	
Trichlorofluoromethane	0.28	U	1.0	ug/L	
Vinyl acetate	0.98	U	5.0	ug/L	
Vinyl chloride	0.30	U	1.0	ug/L	
Xylenes (Total)	0.40	U	1.0	ug/L	
Surrogate: 4-Bromofluorobenzene	41		_	ug/L	50.0 82 51-122



Volatile Organic Compounds by GCMS - Quality Control

Batch 0H06023 - EPA 5030B_MS

Blank (0H06023-BLK1) Continued

Prepared: 08/06/2010 11:29 Analyzed: 08/06/2010 14:06

Analyte	Result Flag	MRL Units		ource	PAREC RPD RPD Himit Notes
Surrogate: Dibromofluoromethane	43	ug/L	50.0	86	68-117
Surrogate: Toluene-d8	42	ug/L	50.0	83	6 9- 110

LCS (0H06023-BS1)

Prepared: 08/06/2010 11:29 Analyzed: 08/06/2010 14:38

ANYO SECTION	Resident	g MRL	Units		Source	LIMITS RPD - L	init Hotes
1,1-Dichloroethene	23	1.0	ug/L	20.0	113	75-133	
Benzene	21	1.0	ug/L	20.0	106	81-134	
Chlorobenzene	20	1.0	ug/L	20.0	102	83-117	
Toluene	21	1.0	ug/L	20.0	103	71-118	
Trichloroethene	20	1.0	ug/L	20.0	99	75-115	

Matrix Spike (0H06023-MS1)

Source: C009177-09

Prepared: 08/06/2010 11:29 Analyzed: 08/06/2010 15:11

Analyte Street Lands	Result Fla	g MRL	- Units			%REC	est c Umits = RP	PPO Hotes
1,1-Dichloroethene	22	1.0	ug/L	20.0	0.24 U	111	75-133	
Benzene	22	1.0	ug/L	20.0	0.20 U	108	81-134	
Chlorobenzene	21	1.0	ug/L	20.0	0.27 U	104	83-117	
Toluene	21	1.0	ug/L	20.0	0.27 U	104	71-118	
Trichloroethene	20	1.0	ug/L	20.0	0.38 U	99	75-115	

Matrix Spike Dup (0H06023-MSD1)

Matrix Spike Dup (0H06023-MSD1)
Source: C009177-09

Prepared: 08/06/2010 11:29 Analyzed: 08/06/2010 15:41

Analyje	Result Fla	, HRL	Units *	Spike Level	Source TRESULT	%REC	SAREC -	*RPD	RPD Limit	
1,1-Dichloroethene	22	1.0	ug/L	20.0	0.24 U	112	75-133	0.5	20	
Benzene	22	1.0	ug/L	20.0	0.20 U	108	81-134	0.4	17	
Chlorobenzene	20	1.0	ug/L	20.0	0.27 ป	100	83-117	4	16	
Toluene	21	1.0	ug/L	20.0	0.27 U	104	71-118	0.6	17	
Trichloroethene	19	1.0	ug/L	20.0	0.38 U	97	75-115	2	18	

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0H05016 - EPA 3005A

Blank (0H05016-BLK1)

Prepared: 08/05/2010 09:48 Analyzed: 08/10/2010 12:26

Anabota	Résult	Flag	MRL	Units	Spike Source World RPD Limit Notes
Arsenic	2.80	U	10.0	ug/L	
Barium	1.00	U	10.0	ug/L	
Beryllium	0.100	U	1.00	ug/L	
Cadmium	0.360	U	1.00	ug/L	
Chromium	1.00	υ	10.0	ug/L	
Cobalt	1.10	U	10.0	ug/L	
Copper	1.60	U	10.0	ug/L	
Lead	1.90	U	10.0	ug/L	
Nickel	1.80	U	10.0	ug/L	



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0H05016 - EPA 3005A

Blank (0H05016-BLK1) Continued

Prepared: 08/05/2010 09:48 Analyzed: 08/10/2010 12:26

Aralyta	Result	Flag	MRL	Units	Solice Source %REC Umits RPD Umit Notes
Silver	1.90	U	10.0	ug/L	
Vanadium	1.40	U	10.0	ug/L	
Zinc	3.80	U	10.0	ug/L	

LCS (0H05016-BS1)

Prepared: 08/05/2010 09:48 Analyzed: 08/10/2010 12:30

Analyte	lësuit Flag	MRL				。在11年10日 10日
	L	四天上世 (1965)	UANG	spike Source evel Result	GREC :	Limits RPD Limit Notes
Arsenic	529	10.0	ug/L	500	106	80-120
Barium	520	10.0	ug/L	500	104	80-120
Beryllium	270	1.00	ug/L	250	108	80-120
Cadmium	259	1.00	ug/L	250	104	80-120
Chromium	516	10.0	ug/L	500	103	80-120
Cobalt	520	10.0	ug/L	500	104	80-120
Copper	260	10.0	ug/L	250	104	80-120
Lead	533	10.0	ug/L	500	107	80-120
Nickel	526	10.0	ug/L	500	105	80-120
Silver	260	10.0	ug/L	250	104	80-120
Vanadium	252	10.0	ug/L	250	101	80-120
Zinc	529	10.0	ug/L	500	106	80-120

Matrix Spike (0H05016-MS1)

Prepared: 08/05/2010 09:48 Analyzed: 08/10/2010 12:42

Source: C008622-01

1175	Result Flag	MRL		Solle	Source Result	%REC	95REC Limits 1	RPD /
Arsenic	566	10.0	ug/L	500	2.80 U	113	75-125	The state of the s
Barium	560	10.0	ug/L	500	19.1	108	75-125	
Beryllium	278	1.00	ug/L	250	0.100 U	111	75-125	
Cadmium	265	1.00	ug/L	250	0.360 U	106	75-125	
Chromium	526	10.0	ug/L	500	1.00 U	105	75-125	
Cobalt	555	10.0	ug/L	500	1.10 U	111	75-125	
Copper	270	10.0	ug/L	250	1.60 U	108	75-125	
Lead	565	10.0	ug/L	500	1.90 U	113	75-125	
Nickel	535	10.0	ug/L	500	1.80 U	107	75-125	
Silver	266	10.0	ug/L	250	1.90 U	107	75-125	
Vanadium	261	10.0	ug/L	250	1.40 U	104	75-125	
Zinc	559	10.0	ug/L	500	14.7	109	75-125	

Matrix Spike Dup (0H05016-MSD1)

Source: C008622-01

Prepared: 08/05/2010 09:48 Analyzed: 08/10/2010 12:57

Douiter Cooperat on										
Analyte	Result Flag	MRL	Units	Spile Level	Source Result	%REC	%REC Umits ~	RPD	RPD . Limit * * NK	des :
Arsenic	577	10.0	ug/L	500	2.80 U	115	75-125	2	20	
Barium	596	10.0	ug/L	500	19.1	115	75-125	6	20	
Beryllium	296	1.00	ug/L	250	0.100 U	119	75-125	7	20	
Cadmium	282	1.00	ug/L	250	0.360 U	113	75-125	6	20	
Chromium	559	10.0	ug/L	500	1.00 U	112	75-125	6	20	
Cobalt	569	10.0	ug/L	500	1.10 U	114	75-125	3	20	



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0H05016 - EPA 3005A

Matrix Spike Dup (0H05016-MSD1) Continued

Source: C008622-01

Prepared: 08/05/2010 09:48 Analyzed: 08/10/2010 12:57

AND THE STATE OF T	Result Fit	o MRL**	Units	Spike Level	Source Result	- WREC	SUREC -	RPD	APO TIME	Proces
Copper	285	10.0	υg/L	250	1.60 U	114	75-125	6	20	
Lead	579	10.0	ug/L	500	1. 90 U	116	75-125	2	20	
Nickel	570	10.0	ug/L	500	1.80 U	114	75-125	6	20	
Silver	282	10.0	ug/L	250	1.90 U	113	75-125	6	20	
Vanadium	278	10.0	ug/L	250	1.40 U	111	75-125	6	20	
Zinc	597	10.0	ug/L	500	14.7	116	75-125	7	20	

Post Spike (0H05016-PS1)

Source: C008622-01

Prepared: 08/05/2010 09:48 Analyzed: 08/10/2010 12:59

	Result Flag	MRL	100	Splice -	Source		WAREC .	RPD Limit Notes
Unallyte	Result Flag	MRL	Units	Level 1	Result	%REC	Limits RPD	Limit Notes
Arsenic	1.19	0.0100	mg/L	1.00	-0.000227	119	80-120	
Barium	1.22	0.0100	mg/L	1.00	0.0191	120	80-120	
Beryllium	0.620	0.00100	mg/L	0.500	-4.06E-5	124	80-120	QM-08
Cadmium	0.590	0.00100	mg/L	0.500	0.000129	118	80-120	
Chromium	1.18	0.0100	mg/L	1.00	-2.91E-5	118	80-120	
Cobalt	1.15	0.0100	mg/L	1.00	9.72E-5	115	80-120	
Copper	0.606	0.0100	mg/L	0.500	0.000452	121	80-120	QM-08
Lead	1.18	0.0100	mg/L	1.00	-0.00120	119	80-120	
Nickel	1.18	0.0100	mg/L	1.00	-0.000630	118	80-120	
Silver	0.549	0.0100	mg/L	0.500	0.000633	110	80-120	
Vanadium	0.587	0.0100	mg/L	0.500	0.000491	117	80-120	
Zinc	1.22	0.0100	mg/L	1.00	0.0147	121	80-120	QM-08

Batch 0H05032 - EPA 3005A

Blank (0H05032-BLK1)

Prepared: 08/05/2010 14:22 Analyzed: 08/10/2010 11:06

Analyte	Result	Flag	HRL	Units	Splice Source ARREC LIghts RPD Limit Notes
Antimony	0.220	U	2.00	ug/L	
Selenium	0.830	U	1.00	ug/L	
Thallium	0.110	U	1.00	ug/L	

LCS (0H05032-BS1)

Prepared: 08/05/2010 14:22 Analyzed: 08/10/2010 11:17

Arabyte	Result Flag	MRL	Units	Spike Level	Source	RPD Limit Notes
Antimony	25.5	2.00	ug/L	25.0	102 80-1	20
Selenium	26.7	1.00	ug/L	25.0	107 80-1	20
Thallium	26.5	1.00	ug/L	25.0	106 80-1	20

Matrix Spike (0H05032-MS1)

Prepared: 08/05/2010 14:22 Analyzed: 08/10/2010 11:24

Source: C009071-05

en all vite is a series of the	Result Flac	and the second second second		Spilke	Source Result	%REC	%REC	RPD	Notes
Antimony	25.8	2.00	ug/L	25.0	0.475	101	75-125	o,o.a.e. (springer)	
Selenium	26.3	1.00	ug/L	25.0	0.830 U	105	75-125		



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0H05032 - EPA 3005A

Matrix Spike (0H05032-MS1) Continued

Source: C009071-05

Prepared: 08/05/2010 14:22 Analyzed: 08/10/2010 11:24

	Result Tie	Martin Francisco Commence of the Commence of t	Units	Splice Level	application for a	14 MIN. 1	NAREC LIMIG A	RPD I Notes
Thallium	25.8	1.00	ug/L	25.0	0.110 U	103	75-125	

Matrix Spike Dup (0H05032-MSD1)

Source: C009071-05

Prepared: 08/05/2010 14:22 Analyzed: 08/10/2010 11:28

Analyte	Result Flag	MRL	Units	Spile Level	Source Result	%REC	PACET Umbe	RPD	RPD Link	ides
Antimony	25.6	2.00	ug/L	25.0	0.475	101	75-125	0.7	20	
Selenium	25.6	1.00	ug/L	25.0	0.830 U	102	75-125	3	20	
Thallium	25.6	1.00	ug/L	25.0	0.110 U	103	75-125	0.8	20	

Post Spike (0H05032-PS1)

Prepared: 08/05/2010 14:22 Analyzed: 08/10/2010 11:31

Source: C009071-05

Anayte	Result Plac	MRL	Units	Spike Leyel	Source Result	%REC	PAGREC RPD RPD Limit Notes
Antimony	28.0	2.00	ug/L	25.0	0.475	110	80-120
Selenium	28.9	1.00	ug/L	25.0	-0.0110	116	80-120
Thallium	27.5	1.00	ug/L	25.0	0.0110	110	80-120



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-08	Post-digestion spike did not meet method requirements due to confirmed matrix effects (dilution test).



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Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Wednesday, October 27, 2010

S&ME, Inc. (SM004)

Attn: Edmund Henriques 3718 Old Battleground Rd. Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill App Is (SMWs)

ENCO Workorder: C011803

Dear Edmund Henriques,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, October 12, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)



PROJECT NARRATIVE

Client: S&ME, Inc. (SM004)

Project: White Street Landfill App Is (SMWs)

Lab ID: C011803

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

The detection of Chloromethane in sample 4103-SMW3 has been determined to be a laboratory artifact caused by contaminant buildup in one component in the 8260B instrumentation. The contaminated part has been replaced and systems are being developed to prevent future occurrences.

Other Comments

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:

Environmental Conservation Laboratories, Inc.

Chuck Smith Project Manager



SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 4103-SMV	W1 Lab ID: 1	0011803-01 Sampled: 10/	11/10 16:00 Received: 10/12/10 14:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/09/11	10/13/10 10:21	10/19/2010 12:57
EPA 6020A	04/09/11	10/13/10 10:25	10/26/2010 11:32
EPA 8260B	10/25/10	10/16/10 14:08	10/18/2010 11:08

Client ID: 4103-SMV	/3 Lab 1D; (0011803-02 Sampled: 10/	11/10 14:55 Received: 10/12/10 14:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/09/11	10/13/10 10:21	10/19/2010 14:00
EPA 6020A	04/09/11	10/13/10 10:25	10/26/2010 11:35
EPA 8260B	10/25/10	10/16/10 14:08	10/18/2010 11:36

Client ID: 4103-SM	W4 Lab ID:	011803-03 Sampled: 10/1	11/10 13:35 Received: 10/12/10 14:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/09/11	10/13/10 10:21	10/19/2010 14:03
EPA 6020A	04/09/11	10/13/10 10:25	10/26/2010 11:39
EPA 8260B	10/25/10	10/18/10 11:19	10/19/2010 04:06

Client ID: 4103-71pt	Slank Lab	ID; C011803-04 Sampled: 10/	11/10:13:35 Received: 10/12/10:14:00	
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 8260B	10/25/10	10/18/10 11:19	10/19/2010 04:35	



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

lient ID: 4103-SHW1	MAN THE PERMITS CO	190		North Control of the Control	CO11803-01		20° 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the second section of the section of the second section of the section of the second section of the sectio	Contract the Confidence of the Confidence
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	1.5	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Barium - Total	140		1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	4.79		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	6.52	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	7.34	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	18.1		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	3.42	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.75	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	18.1	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	409		1	3.80	10.0	10	ug/L	EPA 6010C	
lent (D. 4103-SHW3			erren Erre	Lab ID:	011803-02				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	3.8	j	1	0.33	1.0	5	ug/L	EPA 8260B	
Barium - Total	301		1	1.00	10.0	100	ug/L	EPA 6010C	
Chloromethane	0.61	J	1	0.34	1.0	1	ug/L	EPA 8260B	
Chromium - Total	7.86	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	7.8		1	0.36	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	13.0		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	72.0		1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	5.57	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	56.6		1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	0.68	J	1	0.30	1.0	1	ug/L	EPA 8260B	
Zinc - Total	35.4		1	3.80	10.0	10	ug/L	EPA 6010C	
lent ID: 4103-SHW4		- Ju		Lab ID: = (011803-03		(本質型化		"是是我们 " 你有你 "这一次
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	164		1	1.00	10.0	100	ug/L	EPA 6010C	
Cobalt - Total	1.48	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.35	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.15	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	5.30	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	2.65	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	8.07	j	1	3.80	10.0	10	ug/L	EPA 6010C	



ANALYTICAL RESULTS

 Description:
 4103-SMW1
 Lab Sample ID: C011803-01
 Received: 10/12/10 14:00

 Matrix:
 Ground Water
 Sampled: 10/11/10 16:00
 Work Order: C011803

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/10 11:08	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	υ	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/10 11:08	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/10 11:08	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/10 11:08	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/10 11:08	JKG	
Acetone [67-64-1] ^	1.5	J	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/10 11:08	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/10 11:08	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/10 11:08	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/10 11:08	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/10 11:08	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/10 11:08	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/10 11:08	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/10 11:08	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/10 11:08	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/10 11:08	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/10 11:08	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 82608	10/18/10 11:08	JKG	
Styrene [100-42-5] ^	0.26	υ	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	υ	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/10 11:08	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/10 11:08	JKG	



Description: 4103-SMW1

Lab Sample ID: C011803-01

Received: 10/12/10 14:00

Matrix: Ground Water

Sampled: 10/11/10 16:00

Work Order: C011803

Project: White Street Landfill App Is (SMWs)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DE	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Trichlorofluoromethane [75-69-4] ^	0.28	Ų	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/10 11:08	ЭKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/10 11:08	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/10 11:08	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	49	1	50.0	99 %	51	122	0316007	EPA 8260B	10/18/10 11:08	JKG	
Dibromofluoromethane	4 9	1	50.0	98 %	68-	117	0316007	EPA 8260B	10/18/10 11:08	ЭKG	
Toluene-d8	50	1	50.0	101 %	69	110	0316007	EPA 8260B	10/18/10 11:08	JKG	



Description: 4103-SMW1 **Matrix:** Ground Water

Lab Sample ID: C011803-01 **Sampled:** 10/11/10 16:00

Received: 10/12/10 14:00

Work Order: C011803

Project: White Street Landfill App Is (SMWs)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	By	<u>Notes</u>
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/26/10 11:32	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/19/10 12:57	JDH	
Barium [7440-39-3] ^	140		ug/L	1	1.00	10.0	100	EPA 6010C	10/19/10 12:57	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/19/10 12:57	JDH	
Cadmium [7440-43-9] ^	4.79		ug/L	1	0.360	1.00	1	EPA 6010C	10/19/10 12:57	JDH	
Chromium [7440-47-3] ^	6.52	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/19/10 12:57	JDH	
Cobalt [7440-48-4] ^	7.34	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/19/10 12:57	JDH	
Copper [7440-50-8] ^	18.1		ug/L	1	1.60	10.0	10	EPA 6010C	10/19/10 12:57	JDH	
Lead [7439-92-1] ^	3.42	J	ug/L	1	1.90	10.0	10	EPA 6010C	10/19/10 12:57	JDH	
Nickel [7440-02-0] ^	3.75	j	ug/L	1	1.80	10.0	50	EPA 6010C	10/19/10 12:57	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	10/26/10 11:32	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/19/10 12:57	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/26/10 11:32	VLO	
Vanadium [7440-62-2] ^	18.1	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/19/10 12:57	JDH	
Zinc [7440-66-6] ^	409		ug/L	1	3.80	10.0	10	EPA 6010C	10/19/10 12:57	JDH	



Description: 4103-SMW3 **Matrix:** Ground Water

Lab Sample ID: C011803-02 **Sampled:** 10/11/10 14:55 **Sampled By:** Gary Simcox **Received:** 10/12/10 14:00 **Work Order:** C011803

Project: White Street Landfill App Is (SMWs)

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/10 11:36	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	u	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/10 11:36	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L 	1	0.37	1.0	1	EPA 8260B	10/18/10 11:36	JKG JKG	
1,1-Dichloroethane [75-34-3] ^	3.8	j 	ug/L	1	0.33	1.0 1.0	5 5	EPA 8260B EPA 8260B	10/18/10 11:36 10/18/10 11:36	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24		1	EPA 8260B	10/18/10 11:36	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55 0.48	1.0 1.0	13	EPA 8260B	10/18/10 11:36	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.42	1.0	13	EPA 8260B	10/18/10 11:36	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U U	ug/L	1	0.42	1.0	5	EPA 8260B	10/18/10 11:36	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65		ug/L	1	0.20	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/10 11:36	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L				50	EPA 8260B	10/18/10 11:36	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	100	EPA 8260B	10/18/10 11:36	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/10 11:36	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	200	EPA 8260B	10/18/10 11:36	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10		EPA 8260B	10/18/10 11:36	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Bromochloromethane [74-97-5] ^	0.42	U 	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/10 11:36	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B		JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3 10	EPA 8260B	10/18/10 11:36 10/18/10 11:36	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	100	EPA 8260B	10/18/10 11:36	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	1	EPA 8260B	10/18/10 11:36	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U 	ug/L	1	0.38	1.0	3	EPA 8260B	10/18/10 11:36	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/18/10 11:36	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	5	EPA 8260B	10/18/10 11:36	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1 1	0.20	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Chloromethane [74-87-3] ^	0.61 7.8	J	ug/L ug/L	1	0.34 0.36	1.0 1.0	5	EPA 8260B	10/18/10 11:36	JKG	
cis-1,2-Dichloroethene [156-59-2] ^ cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/10 11:36	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/10 11:36	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/10 11:36	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/10 11:36	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/10 11:36	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50 .	EPA 8260B	10/18/10 11:36	JKG	
Vinyl chloride [75-01-4] ^	0.68	j	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/10 11:36	JKG	
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Description: 4103-SMW3

Lab Sample ID: C011803-02

Received: 10/12/10 14:00

Matrix: Ground Water

Sampled: 10/11/10 14:55 Sampled By: Gary Simcox Work Order: C011803

Project: White Street Landfill App Is (SMWs)

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.40	Flag U	Units ug/L	<u>DF</u> 1	MDL 0.40	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 10/18/10 11:36	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Lit	nits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	48	1	50.0	97 %	51-122		0316007	EPA 8260B	10/18/10 11:36	JKG	
Dibromofluoromethane	48	1	50.0	<i>97</i> %	68-117		0316007	EPA 8260B	10/18/10 11:36	JKG	
Toluene-d8	48	1	50.0	96 %	69-110		0316007	EPA 8260B	10/18/10 11:36	JKG	



Lab Sample ID: C011803-02 Received: 10/12/10 14:00 **Description:** 4103-SMW3 Sampled: 10/11/10 14:55 Matrix: Ground Water

Sampled By: Gary Simcox Project: White Street Landfill App Is (SMWs)

Work Order: C011803

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/26/10 11:35	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/19/10 14:00	JDH	
Barium [7440-39-3] ^	301		ug/L	1	1.00	10.0	100	EPA 6010C	10/19/10 14:00	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/19/10 14:00	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/19/10 14:00	JDH	
Chromium [7440-47-3] ^	7.86	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/19/10 14:00	JDH	
Cobalt [7440-48-4] ^	13.0		ug/L	1	1.10	10.0	10	EPA 6010C	10/19/10 14:00	JDH	
Copper [7440-50-8] ^	72.0		ug/L	1	1.60	10.0	10	EPA 6010C	10/19/10 14:00	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/19/10 14:00	JDH	
Nickel [7440-02-0] ^	5.57	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/19/10 14:00	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	10/26/10 11:35	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/19/10 14:00	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/26/10 11:35	VLO	
Vanadium [7440-62-2] ^	56.6		ug/L	1	1.40	10.0	25	EPA 6010C	10/19/10 14:00	JDH	
Zinc [7440-66-6] ^	35.4		ug/L	1	3.80	10.0	10	EPA 6010C	10/19/10 14:00	JDH	



 Description:
 4103-SMW4
 Lab Sample ID: C011803-03
 Received: 10/12/10 14:00

 Matrix:
 Ground Water
 Sampled: 10/11/10 13:35
 Work Order: C011803

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/10 04:06	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/19/10 04:06	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/10 04:06	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/19/10 04:06	ЭKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/19/10 04:06	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	i	EPA 8260B	10/19/10 04:06	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/19/10 04:06	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/19/10 04:06	ЭKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/19/10 04:06	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/19/10 04:06	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/19/10 04:06	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/19/10 04:06	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/19/10 04:06	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/19/10 04:06	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/19/10 04:06	ЭKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/19/10 04:06	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/19/10 04:06	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/19/10 04:06	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/19/10 04:06	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/19/10 04:06	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/19/10 04:06	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/19/10 04:06	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/19/10 04:06	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 82608	10/19/10 04:06	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/19/10 04:06	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/19/10 04:06	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/10 04:06	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/19/10 04:06	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/19/10 04:06	JKG	



Description: 4103-SMW4

Lab Sample ID: C011803-03

Received: 10/12/10 14:00

Matrix: Ground Water

Sampled: 10/11/10 13:35 Sampled By: Gary Simcox Work Order: C011803

Project: White Street Landfill App Is (SMWs)

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.40	<u>Flag</u> U	Units ug/L	DF	MDL 0.40	MRL 1.0	NC SWSL	Method EPA 8260B	Analyzed 10/19/10 04:06	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec L	imits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	50	1	50.0	100 %	51-12	?2	0318026	EPA 8260B	10/19/10 04:06	JKG	
Dibromofluoromethane	53	1	50.0	107 %	68-11	17	0318026	EPA 8260B	10/19/10 04:06	JKG	
Toluene-d8	48	1	50.0	96 %	69-11	10	0318026	EPA 8260B	10/19/10 04:06	JKG	



Received: 10/12/10 14:00 Description: 4103-SMW4 Lab Sample ID: C011803-03 Sampled: 10/11/10 13:35 Matrix: Ground Water

Project: White Street Landfill App Is (SMWs) Sampled By: Gary Simcox Work Order: C011803

Metals (total recoverable) by EPA 6000/7000 Series Methods

Analyte [CAS Number]	Results	<u>Flaq</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	10/26/10 11:39	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/19/10 14:03	JDH	
Barium [7440-39-3] ^	164		ug/L	1	1.00	10.0	100	EPA 6010C	10/19/10 14:03	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/19/10 14:03	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/19/10 14:03	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/19/10 14:03	JDH	
Cobalt [7440-48-4] ^	1.48	j	ug/L	1	1.10	10.0	10	EPA 6010C	10/19/10 14:03	HOL	
Copper [7440-50-8] ^	2.35	j	ug/L	1	1.60	10.0	10	EPA 6010C	10/19/10 14:03	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/19/10 14:03	JDH	
Nickel [7440-02-0] ^	4.15	j	ug/L	1	1.80	10.0	50	EPA 6010C	10/19/10 14:03	JDH	
Selenium [7782-49-2] ^	5.30	J	ug/L	1	0.830	1.00	10	EPA 6020A	10/26/10 11:39	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/19/10 14:03	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/26/10 11:39	VLO	
Vanadium [7440-62-2] ^	2.65	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/19/10 14:03	JOH	
Zinc [7440-66-6] ^	8.07	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/19/10 14:03	HOC	



Lab Sample ID: C011803-04 Received: 10/12/10 14:00 **Description:** 4103-TripBlank Matrix: Water

Sampled By: ENCO Project: White Street Landfill App Is (SMWs)

Sampled: 10/11/10 13:35 Work Order: C011803

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	<u>By</u>	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/10 04:35 10/19/10 04:35	JKG JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1 3	EPA 8260B EPA 8260B	10/19/10 04:35	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U 	ug/L	1 1	0.33 0.37	1.0 1.0	1	EPA 8260B	10/19/10 04:35	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37 0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/10 04:35	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/10 04:35	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	υ	ug/L ug/L	1	0.55	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
1,2,3-Trichloropropane [96-18-4] ^ 1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/19/10 04:35	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/19/10 04:35	ЭKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/19/10 04:35	ЭKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	υ	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/19/10 04:35	JKG	
2-Hexanone [591-78-6] ^	0.69	u	ug/L	1	0.69	5.0	50	EPA 8260B	10/19/10 04:35	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/19/10 04:35	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/19/10 04:35	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/19/10 04:35	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/19/10 04:35	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/19/10 04:35	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/19/10 04:35	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/19/10 04:35	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/19/10 04:35	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/19/10 04:35	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/19/10 04:35	JKG	
Chloromethane [74-87-3] ^	0.34	υ	ug/L	1	0.34	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/19/10 04:35	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/19/10 04:35	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/19/10 04:35	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/19/10 04:35	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/19/10 04:35	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/19/10 04:35	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/10 04:35	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/19/10 04:35	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/19/10 04:35	JKG	



Description: 4103-TripBlank

Lab Sample ID: C011803-04

Received: 10/12/10 14:00

Matrix: Water

Sampled: 10/11/10 13:35

Work Order: C011803

Project: White Street Landfill App Is (SMWs)

Sampled By: ENCO

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.40	<u>Flag</u> U	Units ug/L	DF	MDL 0.40	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 10/19/10 04:35	By JKG	Notes
Surrogates	Results	DF	Spike Lvi	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	51	1	50.0	101 %	51-1.	22	0318026	EPA 8260B	10/19/10 04:35	JKG	
Dibromofluoromethane	<i>53</i>	1	50.0	106 %	68-1.	17	0318026	EPA 8260B	10/19/10 04:35	JKG	
Toluene-d8	50	1	50.0	100 %	69-1.	10	0318026	EPA 8260B	10/19/10 04:35	JKG	



Volatile Organic Compounds by GCMS - Quality Control

Batch 0J16007 - EPA 5030B_MS

Blank (0J16007-BLK1)

Prepared: 10/16/2010 14:08 Analyzed: 10/18/2010 07:22

LINEWARD BOOK AND LINE BOOK AN	no uno nero carbonare	Application (Application)	C. Charles C	aug California de de artista.	repared, 10/10/2010 14:00 rainiyaed. 10/10/2010 07:22
Analyte	Result	Flag	MRL	Units	Spike Source MREC RPD Level Result Motes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L	
1,1,1-Trichloroethane	0.27	U	1.0	ug/L	
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L	
1,1,2-Trichloroethane	0.37	U	1.0	ug/L	
1,1-Dichloroethane	0.33	U	1.0	ug/L	
1,1-Dichloroethene	0.24	U	1.0	υg/L	
1,2,3-Trichloropropane	0.55	U	1.0	ug/L	
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L	
1,2-Dibromoethane	0.42	U	1.0	ug/L	
1,2-Dichlorobenzene	0.27	U	1.0	ug/L	
1,2-Dichloroethane	0.65	U	1.0	ug/L	
1,2-Dichloropropane	0.20	υ	1.0	ug/L	
1,4-Dichlorobenzene	0.38	U	1.0	ug/L	
2-Butanone	1.0	U	5.0	ug/L	
2-Hexanone	0.69	U	5.0	ug/L	
4-Methyl-2-pentanone	1.1	U	5.0	ug/L	
Acetone	1.5	U	5.0	ug/L	
Acrylonitrile	2.1	U	10	ug/L	
Benzene	0.20	U	1.0	ug/L	
Bromochloromethane	0.42	U	1.0	ug/L	
Bromodichloromethane	0.37	U	1.0	ug/L	
Bromoform	0.71	U	1.0	ug/L	
Bromomethane	0.49	U	1.0	ug/L	
Carbon disulfide	0.54	U	5.0	ug/L	
Carbon tetrachloride	0.38	U	1.0	ug/L	
Chlorobenzene	0.27	U	1.0	ug/L	
Chloroethane	0.30	U	1.0	ug/L	
Chloroform	0.20	U	1.0	ug/L	
Chloromethane	0.34	U	1.0	ug/L	
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L	
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L	
Dibromochloromethane	0.32	U	1.0	ug/L	
Dibromomethane	0.37	U	1.0	ug/L	
Ethylbenzene	0.20	U	1.0	ug/L	
Iodomethane	0.52	U	5.0	ug/L	
Methylene chloride	0.53	U	1.0	ug/L	
Styrene	0.26	U	1.0	ug/L	
Tetrachloroethene	0.36	U	1.0	ug/L	
Toluene	0.27	U	1.0	ug/L	
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L	
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L	
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L	
Trichloroethene	0.38	U	1.0	ug/L	
Trichlorofluoromethane	0.28	U	1.0	ug/L	
Vinyl acetate	0.98	U	5.0	ug/L	
Vinyl chloride	0.30	U	1.0	ug/L	
Xylenes (Total)	0.40	U	1.0	ug/L	
Surrogate: 4-Bromofluorobenzene	51			ug/L	50.0 102 51-122



Volatile Organic Compounds by GCMS - Quality Control

Batch 0J16007 - EPA 5030B_MS

Blank (0J16007-BLK1) Continued

Prepared: 10/16/2010 14:08 Analyzed: 10/18/2010 07:22

Analyte and a second se		MRL Units	Solice. Level	Source : Result %REC	#6REC Limits F	PD Limit Notes
Surrogate: Dibromofluoromethane	56	ug/L	50.0	112	68-117	
Surrogate: Toluene-d8	50	ug/L	50.0	101	69-110	

LCS (0316007-BS1)

Prepared: 10/16/2010 14:08 Analyzed: 10/18/2010 07:50

) MRL	Units		ource each system		APP THE STATE OF
1,1-Dichloroethene	25	1.0	ug/L	20.0	126	75-133	
Benzene	21	1.0	ug/L	20.0	104	81-134	
Chlorobenzene	21	1.0	ug/L	20.0	107	83-117	
Toluene	21	1.0	ug/L	20.0	104	71-118	
Trichloroethene	21	1.0	ug/L	20.0	107	75-115	

Matrix Spike (0J16007-MS1)

Prepared: 10/16/2010 14:08 Analyzed: 10/18/2010 08:18

Source: C012438-10

Analyte	Regult Flag	MRL	Units	Solve Level	Source Result	+ %RE C	PAREC RPD Limit Notes
1,1-Dichloroethene	25	1.0	ug/L	20.0	0.24 U	124	75-133
Benzene	21	1.0	ug/L	20.0	0.20 U	105	81-134
Chlorobenzene	22	1.0	ug/L	20.0	0.27 U	108	83-117
Toluene	21	1.0	ug/L	20.0	0.27 U	104	71-118
Trichloroethene	21	1.0	ug/L	20.0	0.38 U	106	75-115

Matrix Spike Dup (0J16007-MSD1)

Source: C012438-10

Prepared: 10/16/2010 14:08 Analyzed: 10/18/2010 08:46

Alays 1	Pasin Fla	HRL *	Units	Solie Live	Source Result	- SAREC	* REC - Limits	RPD '	RPD	Notes
1,1-Dichloroethene	24	1.0	ug/L	20.0	0.24 U	119	75-133	4	20	
Benzene	21	1.0	ug/L	20.0	0.20 U	103	81-134	2	17	
Chlorobenzene	21	1.0	ug/L	20.0	0.27 U	105	83-117	3	16	
Toluene	20	1.0	ug/L	20.0	0.27 U	101	71-118	2	17	
Trichloroethene	21	1.0	ug/L	20.0	0.38 U	103	75-115	2	18	

Batch 0J18026 - EPA 5030B_MS

Blank (0J18026-BLK1)

Prepared: 10/18/2010 14:11 Analyzed: 10/18/2010 20:07

					Spike Source SWREC RPD
Analyte 22 3	Result	Flag	HRL .	Units :	Level Result WREC Limits RPD Limit 4 A Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L	
1,1,1-Trichloroethane	0.27	U	1.0	ug/L	
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L	
1,1,2-Trichloroethane	0.37	U	1.0	ug/L	
1,1-Dichloroethane	0.33	U	1.0	ug/L	
1,1-Dichloroethene	0.24	υ	1.0	ug/L	
1,2,3-Trichloropropane	0.55	U	1.0	ug/L	
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L	
1,2-Dibromoethane	0.42	U	1.0	ug/L	
1,2-Dichlorobenzene	0.27	U	1.0	ug/L	



Volatile Organic Compounds by GCMS - Quality Control

Batch 0J18026 - EPA 5030B_MS

Blank (0J18026-BLK1) Continued

Prepared: 10/18/2010 14:11 Analyzed: 10/18/2010 20:07

Blank (UJ18U26-BERT) Continued							alyzeu. 10/10/2010 20.0	er gang Matana napag Spanjah Kana (Matapa	of a state about the
Analyte	Result	Flag	MRL	Units	A STATE OF THE PARTY OF THE PAR	rce suit %REC	96REC Limits RPD	RPD # Umit	Notes
1,2-Dichloroethane	0.65	U	1.0	ug/L					
1,2-Dichloropropane	0.20	U	1.0	ug/L					
1,4-Dichlorobenzene	0.38	U	1.0	ug/L					
2-Butanone	1.0	U	5.0	ug/L					
2-Hexanone	0.69	U	5.0	ug/L					
4-Methyl-2-pentanone	1.1	U	5.0	ug/L					
Acetone	1.5	U	5.0	ug/L					
Acrylonitrile	2.1	U	10	ug/L					
Benzene	0.20	U	1.0	ug/L					
Bromochloromethane	0.42	U	1.0	ug/L					
Bromodichloromethane	0.37	U	1.0	ug/L					
Bromoform	0.71	U	1.0	ug/L					
Bromomethane	0.49	U	1.0	ug/L					
Carbon disulfide	0.54	U	5.0	ug/L					
Carbon tetrachloride	0.38	υ	1.0	ug/L					
Chlorobenzene	0.27	U	1.0	ug/L					
Chloroethane	0.30	U	1.0	ug/L					
Chloroform	0.20	U	1.0	ug/L					
Chloromethane	0.34	U	1.0	ug/L					
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L					
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L					
Dibromochloromethane	0.32	U	1.0	ug/L					
Dibromomethane	0.37	U	1.0	ug/L					
Ethylbenzene	0.20	U	1.0	ug/L					
Iodomethane	0.52	U	5.0	ug/L					
Methylene chloride	0.53	U	1.0	ug/L					
Styrene	0.26	U	1.0	ug/L					
Tetrachloroethene	0.36	U	1.0	ug/L					
Toluene	0.27	U	1.0	ug/L					
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L					
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L					
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L					
Trichloroethene	0.38	U	1.0	ug/L					
Trichlorofluoromethane	0.28	U	1.0	ug/L					
Vinyl acetate	0.98	U	5.0	ug/L					
Vinyl chloride	0.30	U	1.0	ug/L					
Xylenes (Total)	0.40	U	1.0	ug/L					
Surrogate: 4-Bromofluorobenzene	51			ug/L	50.0	102	51-122		
Surrogate: Dibromofluoromethane	54			ug/L	50.0	109	68-117		
Surrogate: Toluene-d8	50			ug/L	50.0	100	69-110		

LCS (0J18026-BS1)

Prepared: 10/18/2010 14:11 Analyzed: 10/18/2010 20:35

Analyte	Result Ha) MRL	Units	Spike S Level i	ource Result %REC	%REC Limits	RPD	otes :
1,1-Dichloroethene	23	1.0	ug/L	20.0	114	75-133		
Benzene	21	1.0	ug/L	20.0	104	81-134		
Chlorobenzene	22	1.0	ug/L	20.0	110	83-117		
Toluene	21	1.0	ug/L	20.0	104	71-118		



Volatile Organic Compounds by GCMS - Quality Control

Batch 0J18026 - EPA 5030B_MS

LCS (0J18026-BS1) Continued

Prepared: 10/18/2010 14:11 Analyzed: 10/18/2010 20:35

Analyte	Result Flag	MRL	Units		Source Result %REC	SAREC Limits RPD	RPD
Trichloroethene	21	1.0	ug/L	20.0	105	75-115	

Matrix Spike (0J18026-MS1)

Source: C012522-04

Prepared: 10/18/2010 14:11 Analyzed: 10/18/2010 21:03

Ailalyta	Result Ro	, ARL	Vide		Source Rasin	SKEC	Siries RPD Limit Notes
1,1-Dichloroethene	22	1.0	ug/L	20.0	0.24 U	109	75-133
Benzene	20	1.0	ug/L	20.0	0.20 U	102	81-134
Chlorobenzene	21	1.0	ug/L	20.0	0.27 U	106	83-117
Toluene	21	1.0	ug/L	20.0	0.27 U	104	71-118
Trichloroethene	21	1.0	ug/L	20.0	0.38 U	105	75-115

Matrix Spike Dup (0J18026-MSD1)

Source: C012522-04

Prepared: 10/18/2010 14:11 Analyzed: 10/18/2010 21:32

Analyte	Result "Fla	MRL	Units	Spile Level	Source Result	WREC	WASC Limits	RPD :	PP) Limit	Notes
1,1-Dichloroethene	21	1.0	ug/L	20.0	0.24 U	105	75-133	4	20	
Benzene	20	1.0	ug/L	20.0	0.20 U	101	81-134	1	17	
Chlorobenzene	21	1.0	ug/L	20.0	0.27 U	107	83-117	0.6	16	
Toluene	20	1.0	ug/L	20.0	0.27 ป	100	71-118	4	17	
Trichloroethene	20	1.0	ug/L	20.0	0.38 U	101	75-115	4	18	

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0J13015 - EPA 3005A

Blank (0J13015-BLK1)

Prepared: 10/13/2010 10:21 Analyzed: 10/19/2010 12:50

The same of the sa	great Park				Solice Source 96REC RPD
Analyte	Result	- Flag	# MRL	- Units	Level Result Screen Limits RPD Limit Notes
Arsenic	2.80	U	10.0	ug/L	
Barium	1.00	U	10.0	ug/L	
Beryllium	0.100	U	1.00	ug/L	
Cadmium	0.360	U	1.00	ug/L	
Chromium	1.00	U	10.0	ug/L	
Cobalt	1.10	U	10.0	ug/L	
Copper	1.60	U	10.0	ug/L	
Lead	1.90	U	10.0	ug/L	
Nickel	1.80	U	10.0	ug/L	
Silver	1.90	U	10.0	ug/L	
Vanadium	1.40	U	10.0	ug/L	
Zinc	3.80	U	10.0	ug/L	

LCS (0J13015-BS1)

Prepared: 10/13/2010 10:21 Analyzed: 10/19/2010 12:55

Analyte	Result Fla	g MRL	Units	Splice Level	Source Result %REC	%REC	RPD
Arsenic	522	10.0	ug/L	500	104	80-120	
Barium	513	10.0	ug/L	500	103	80-120	
Beryllium	266	1.00	ug/L	250	107	80-120	



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0J13015 - EPA 3005A

LCS (0J13015-BS1) Continued

Prepared: 10/13/2010 10:21 Analyzed: 10/19/2010 12:55

	Result Fla	o MRL	Units	Spike	Source	%REC RPD Limit	Notes
Cadmium	260	1.00	ug/L	250	104	80-120	
Chromium	516	10.0	ug/L	500	103	80-120	
Cobalt	517	10.0	ug/L	500	103	80-120	
Copper	259	10.0	ug/L	250	104	80-120	
Lead	522	10.0	ug/L	500	104	80-120	
Nickel	520	10.0	ug/L	500	104	80-120	
Silver	252	10.0	ug/L	250	101	80-120	
Vanadium	252	10.0	ug/L	250	101	80-120	
Zinc	520	10.0	ug/L	500	104	80-120	

Matrix Spike (0J13015-MS1)

Source: C011803-01

Prepared: 10/13/2010 10:21 Analyzed: 10/19/2010 13:00

			Opis :	Spile	Source		XXEC	RPD
Analyto self-eric soles de la constante	Result - A Fla	g = MKL = =		LEVEL 43	2.80 U	111	75-125	RPD PARELINE R NOBS in A
Arsenic	555	10.0	ug/L	500				
Barium	676	10.0	ug/L	500	140	107	75-125	
Beryllium	279	1.00	ug/L	250	0.100 U	112	75-125	
Cadmium	274	1.00	ug/L	250	4.79	108	75-125	
Chromium	542	10.0	ug/L	500	6.52	107	75-125	
Cobalt	558	10.0	ug/L	500	7.34	110	75-125	
Copper	289	10.0	ug/L	250	18.1	108	75-125	
Lead	554	10.0	ug/L	500	3.42	110	75-125	
Nickel	537	10.0	ug/L	500	3.75	107	75-125	
Silver	263	10.0	ug/L	250	1.90 U	105	75-125	
Vanadium	282	10.0	ug/L	250	18.1	105	75-125	
Zinc	956	10.0	ug/L	500	409	109	75-125	

Matrix Spike Dup (0J13015-MSD1)

Prepared: 10/13/2010 10:21 Analyzed: 10/19/2010 13:11

Source: C011803-01

	Result Fla	a MRL	Ünits	Spike Level	Source Result	%REC	PAREC Umits	RPD	RPD Notes
Analyce and a second a second and a second a	Result Fla	10.0	ug/L	500	2.80 U	118	75-125	6	20
Barium	712	10.0	ug/L	500	140	114	75-125	5	20
Beryllium	296	1.00	ug/L	250	0.100 U	118	75-125	6	20
Cadmium	290	1.00	ug/L	250	4.79	114	75-125	6	20
Chromium	572	10.0	ug/L	500	6.52	113	75-125	5	20
Cobalt	590	10.0	ug/L	500	7.34	117	75-125	6	20
Copper	304	10.0	ug/L	250	18.1	114	75-125	5	20
Lead	586	10.0	ug/L	500	3.42	116	75-125	6	20
Nickel	570	10.0	ug/L	500	3.75	113	75-125	6	20
Silver	278	10.0	ug/L	250	1.90 U	111	75-125	5	20
Vanadium	297	10.0	ug/L	250	18.1	112	75-125	5	20
Zinc	1010	10.0	ug/L	500	409	120	75-125	5	20

Post Spike (0J13015-PS1)

Source: C011803-01

Prepared: 10/13/2010 10:21 Analyzed: 10/19/2010 13:14



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0313015 - EPA 3005A

Post Spike (0J13015-PS1) Continued

Source: C011803-01

Prepared: 10/13/2010 10:21 Analyzed: 10/19/2010 13:14

	Result - Fr	e PRL	Units	Solida Level	Source	%REC	96REC RPD Limit Notes
Arsenic	1.14	0.0100	mg/L	1.00	0.000362	114	80-120
Barium	1.27	0.0100	mg/L	1.00	0.140	113	80-120
Beryllium	0.586	0.00100	mg/L	0.500	-7.50E-5	117	80-120
Cadmium	0.572	0.00100	mg/L	0.500	0.00479	114	80-120
Chromium	1.14	0.0100	mg/L	1.00	0.00652	113	80-120
Cobalt	1.11	0.0100	mg/L	1.00	0.00734	111	80-120
Copper	0.596	0.0100	mg/L	0.500	0.0181	116	80-120
Lead	1.13	0.0100	mg/L	1.00	0.00342	113	80-120
Nickel	1.12	0.0100	mg/L	1.00	0.00375	111	80-120
Silver	0.570	0.0100	mg/L	0.500	-1.19E-5	114	80-120
Vanadium	0.575	0.0100	mg/L	0.500	0.0181	111	80-120
Zinc	1.57	0.0100	mg/L	1.00	0.409	116	80-120

Batch 0J13016 - EPA 3005A

Blank (0313016-BLK1)

Prepared: 10/13/2010 10:25 Analyzed: 10/26/2010 11:06

Analyte design of the second o	A PART OF THE PART	Flag :	MRL*	Units	Spike Solitie ASSEC ASSEC APP.
Antimony	0.220	U	2.00	ug/L	
Selenium	0.830	U	1.00	ug/L	
Thallium	0.110	U	1.00	ug/L	

LCS (0J13016-B\$1)

Prepared: 10/13/2010 10:25 Analyzed: 10/26/2010 11:10

Analyte same to the same of th	r de la	MRL	Vaits	Spike Source Level Result	%REC	NoREC RPD Limit Notes
Antimony	27.4	2.00	ug/L	25.0	110	80-120
Selenium	27.5	1.00	ug/L	25.0	110	80-120
Thallium	26.8	1.00	ug/L	25.0	107	80-120

Matrix Spike (0J13016-MS1)

Source: C012357-01

Prepared: 10/13/2010 10:25 Analyzed: 10/26/2010 11:17

Analyte	Result Flag	MRL	- Units	Spite Level	Source Result	%REC	MAREC LIMITS	RPD Limit Notes
Antimony	20.4	2.00	ug/L	25.0	0.280	80	75-125	
Selenium	23.9	1.00	ug/L	25.0	0.830 U	96	75-125	
Thallium	24.5	1.00	ug/L	25.0	0.110 U	98	75-125	

Matrix Spike Dup (0J13016-MSD1)

Prepared: 10/13/2010 10:25 Analyzed: 10/26/2010 11:21

Source: C012357-01

Analyte 7	Result Flag	MRL	Units	Spike Level	Source Result	%REC	SAREC Limits	RPD	RPD Limit	Notes -
Antimony	20.3	2.00	ug/L	25.0	0.280	80	75-125	0.7	20	
Selenium	23.2	1.00	υg/L	25.0	0.830 U	93	75-125	3	20	
Thallium	24.9	1.00	ug/L	25.0	0.110 U	100	75-125	2	20	

Post Spike (0J13016-PS1)

Prepared: 10/13/2010 10:25 Analyzed: 10/26/2010 11:24



Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0J13016 - EPA 3005A

Post Spike (0313016-PS1) Continued

Source: C012357-01

Prepared: 10/13/2010 10:25 Analyzed: 10/26/2010 11:24

Aralyte	Result of Flag	- HRL	Units -	Spile Level	Source Result	-%REC	SAREC RPD Limit Notes
Antimony	28.4	2.00	ug/L	25.0	0.280	112	80-120
Selenium	29.0	1.00	ug/L	25.0	0.142	116	80-120
Thallium	27.1	1.00	ug/L	25.0	-0.299	109	80-120



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.



	50-3945	(925-298-3007 Fax (944) 298-5210	ara	(013) 467-3090 Fax (913) 467-3674		Page of
S&ME, Inc. (SM004)	Foliati Number			Requested Analyson		Rocuested Turnardund
3718 Old Battlegraund Rd	White Street Landfill App is (SMWs)	I App Is (SMWs)	 (で、45年			First set in the set of the set o
Greenshoro, NC 27410	مار Billing ، ا	1	i xib			direction of the second of the
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Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Wednesday, November 4, 2009

S&ME, Inc. (SM004)

Attn: Connel Ware

3718 Old Battleground Rd.

Greensboro, NC 27410

RE: Laboratory Results for

Project Number: 1584-98-081, Project Name/Desc: White Street Landfill MNA

ENCO Workorder: C911892

Dear Connel Ware,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Saturday, October 17, 2009.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

Thuck Sut



SAMPLE SUMMARY/LABORATORY CHRONICLE

lient ID: 4103 II - 1		Lab ID: C911892-01	Sampled	10/16/09 10:00 Received: 10/17/09 09:45
Parameter	Hold Date/Time(s)	Prep Date	Time(s)	Analysis Date/Time(s)
EPA 300.0	11/13/09	10/18/09	07:22	10/19/2009 06:51
EPA 353.2	11/13/09	10/20/09	08:55	10/20/2009 08:55
RSK 175	10/30/09	10/23/09	09:11	10/23/2009 10:38
SM18 4500-S D	10/23/09	10/23/09	14:20	10/23/2009 14:20
SM18 5310B	11/13/09	10/21/09	15:00	10/21/2009 15:17
Volatile Fatty Acids	10/30/09	10/20/09	10:16	10/21/2009 16:12

Client ID: 4103 II -	1 Lab ID:	C911892-01RE1 Sampled: 10/16	6/09 10:00 Received: 10/17/09 09:45
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/13/09	10/18/09 07:22	10/19/2009 14:38
RSK 175	10/30/09	10/23/09 09:11	10/23/2009 11:10

Client ID: 4103 II	-1 Lab ID:	C911892-01RE2 Sampled: 10/10	6/09 10:00 Received: 10/17/09 09:45
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 310.2	10/30/09	10/18/09 07:13	10/18/2009 09:41

Da-a	Held Date (Time(a)	Dran Data (Time(a)	Analysis Date/Time(s)
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	
EPA 300.0	11/13/09	10/18/09 07:22	10/19/2009 07:41
EPA 353.2	11/13/09	10/20/09 08:55	10/20/2009 08:55
RSK 175	10/30/09	10/23/09 09:11	10/23/2009 10:16
SM18 4500-S D	10/23/09	10/23/09 14:20	10/23/2009 14:20
SM18 5310B	11/13/09	10/21/09 15:00	10/21/2009 15:17
Volatile Fatty Acids	10/30/09	10/20/09 10:16	10/21/2009 17:14

Client ID: 4103 II -	2 Lab	ID: C911892-02RE1 Sampled: 10/16	5/09 12:50 Received: 10/17/09 09:45
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 310.2	10/30/09	10/18/09 07:13	10/18/2009 09:27

lient ID: 4103 II - 7		ab 10: C912221-01	ampled:	10/19/09 12:45 Received: 10/20/09 11:00
Parameter	Hold Date/Time(s)	Prep Date/T	me(s)	Analysis Date/Time(s)
EPA 300.0	11/16/09	10/25/09	07:30	10/26/2009 06:55
EPA 310.2	11/02/09	10/25/09	11:29	10/25/2009 14:09
EPA 353.2	11/16/09	10/27/09	08:04	10/27/2009 08:04
RSK 175	11/02/09	10/23/09	09:11	10/23/2009 10:49
SM18 4500-S D	10/26/09	10/23/09	14:20	10/23/2009 14:20
SM18 5310B	11/16/09	10/28/09	10:00	10/28/2009 13:24
Volatile Fatty Acids	11/02/09	10/23/09	09:07	10/23/2009 14:56

Page 2 of 39



Client ID: 4103 II -	7 Labi	D; C912221-01RE1 Sampled: 10/	19/09 12:45 Received: 10/20/09 11:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
RSK 175	11/02/09	10/23/09 09:11	10/23/2009 11:23

Client ID: 4103 II - 7B		Lab ID: C912221-02	Sampled	1: 10/19/09 10:10 Received: 10/20/09 11:00
Parameter	Hold Date/Time(s)	Prep Date	Time(s)	Analysis Date/Time(s)
EPA 300.0	11/16/09	10/25/09	07:30	10/26/2009 07:11
EPA 310.2	11/02/09	10/25/09	11:29	10/25/2009 14:10
EPA 353.2	11/16/09	10/27/09	08:04	10/27/2009 08:04
RSK 175	11/02/09	10/23/09	09:11	10/23/2009 10:53
SM18 4500-S D	10/26/09	10/23/09	14:20	10/23/2009 14:20
SM18 5310B	11/16/09	10/28/09	10:00	10/28/2009 13:24
Volatile Fatty Acids	11/02/09	10/23/09	09:07	10/23/2009 15:59

Client ID: 4103 II -	7B); C912221-02RE1 Sampled: 10	/19/09 10:10 Received: 10/20	/09 11:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 300.0	11/16/09	10/25/09 07:30	10/26/2009 08:29	

Client ID: 4103 MW-14	Lab ID:	C912260-01 Sampled: 10/2	20/09 18:00 Received: 10/21/09 13:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/17/09	10/25/09 07:30	10/26/2009 07:26
EPA 310.2	11/03/09	10/25/09 11:29	10/25/2009 14:11
EPA 353.2	11/17/09	11/03/09 11:47	11/3/2009 11:47
RSK 175	11/03/09	10/23/09 09:11	10/23/2009 10:57
SM18 4500-S D	10/27/09	10/26/09 16:00	10/26/2009 16:00
SM18 5310B	11/17/09	10/28/09 16:00	10/28/2009 23:05
Volatile Fatty Acids	11/03/09	10/23/09 09:07	10/23/2009 17:01

Client ID: 4103 II-2B	Lab ID:	C912260-02 Sampled: 10/2	0/09 15:45 Received: 10/21/09 13:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/17/09	10/25/09 07:30	10/26/2009 07:42
EPA 353.2	11/17/09	11/03/09 11:47	11/3/2009 11:47
RSK 175	11/03/09	10/23/09 09:11	10/23/2009 11:01
SM18 4500-S D	10/27/09	10/26/09 16:00	10/26/2009 16:00
SM18 5310B	11/17/09	10/28/09 16:00	10/28/2009 23:05
Volatile Fatty Acids	11/03/09	10/23/09 09:07	10/23/2009 18:04

Client ID: 4103 II-	28 Lab ID:	C912260-02RE1 Sampled: 10/2	20/09 15:45 Received: 10/21/09 13:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 310.2	11/03/09	10/29/09 07:42	10/29/2009 08:40
RSK 175	11/03/09	10/23/09 09:11	10/23/2009 11:27



lient ID: 4103 II-9	Lab ID;	C912260-03 Sampled: 10/2	0/09 12:00 Received: 10/21/09 13:3
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/17/09	10/25/09 07:30	10/26/2009 07:58
EPA 353.2	11/17/09	11/03/09 11:47	11/3/2009 11:47
RSK 175	11/03/09	10/23/09 09:11	10/23/2009 11:04
SM18 4500-S D	10/27/09	10/26/09 16:00	10/26/2009 16:00
SM18 5310B	11/17/09	10/28/09 16:00	10/28/2009 23:05
Volatile Fatty Acids	11/03/09	10/23/09 09:07	10/23/2009 19:07

Client ID: 4103 II-	9 Lab 1D: (C912260-03RE1 Sampled: 10/	20/09 12:00 Received: 10/21/09 13:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 310.2	11/03/09	10/29/09 07:42	10/29/2009 08:41
RSK 175	11/03/09	10/23/09 09:11	10/23/2009 11:31



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Jient ID: 4103 II - 1		特特位		Lab ID: +	C911892-01	行。如此學			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetic Acid	25		1	0.071	0.50	NE	mg/L	Volatile Fatty Acids	
Methane	0.266		1	0.0002	0.001	NE	mg/L	RSK 175	
Nitrate as N	0.028)	1	0.0056	0.10	10	mg/L	EPA 353.2	
Sulfate as SO4	12	J	1	0.078	5.0	250	mg/L	EPA 300.0	
Total Organic Carbon	30		1	0.32	1.0	NE	mg/L	SM18 5310B	
New 1D: 4103 II - 1			K. How	Lab ID:	C911892-01	RE1	112		
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	733	D	10	7.80	25.0	NÉ	mg/L	RSK 175	
Chloride	410	D	10	0.18	50	NE	mg/L	EPA 300.0	
(at.D: 4103 II - 1	. North (Alfan) Lead (Alfan)	a design	ė inge	Láb ID:	C911 89 2-01	RE2 **			- Janaanse (17) Elekario (17)
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Total Alkalinity	320	D	5	42	75	NE	mg/L	EPA 310.2	
ient iD; : 4103 U : 2	and the second	entaktin Suutkkit	- di	'Lab ID:	C911892-02				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	110		1	0.780	2.50	NË	mg/L	RSK 175	
Chloride	11		1	0.018	5.0	NE	mg/L	EPA 300.0	
Lactic Acid	0.17	J	1	0.088	0.50	NE	mg/L	Volatile Fatty Acids	
	*	=				NE	mg/L	RSK 175	
	1.06		1	0.0002					
Methane	1.06 27	1	1	0.0002 0.078	0.001 5.0		-		
Methane Sulfate as SO4 Total Organic Carbon	1.06 27 0.88	J J	1 1 1	0.0002 0.078 0.32	5.0 1.0 (311892-02	250 NE	mg/L mg/L mg/L	EPA 300.0 SM18 5310B	
Methane Sulfate as SO4 Total Organic Carbon Lent 10: 4103 II - 2 Analyte	27 0.88 Results] Flag	1 1 DF	0.078 0.32 Lab ID; MDL	5.0 1.0 C911892-02 MRL	250 NE RE1	mg/L mg/L	EPA 300.0 SM18 5310B	Notes
Methane Sulfate as SO4 Total Organic Carbon Lent 10: 4103 II - 2 Analyte	27 0.88	J	1	0.078 0.32	5.0 1.0 (3)11892-02	250 NE	mg/L mg/L	EPA 300.0 SM18 5310B	Notes
Methane Sulfate as SO4 Total Organic Carbon Lent ID: 4103 IT - 2 Analyte Total Alkalinity	27 0.88 Results] Flag	1 1 DF	0.078 0.32 Lab ID; MDL	5.0 1.0 C911892-02 MRL	250 NE RE1 NC SWSL NE	mg/L mg/L Units	EPA 300.0 SM18 5310B	Notes
Methane Sulfate as SO4 Total Organic Carbon Lent ID: 4103 II - 2 Analyte Total Alkalinity Lent ID: 4103 II - 7 Analyte	27 0.88 Results 370] Flag	1 1 DF	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL	5.0 1.0 C911892-02 MRL 30	250 NE RE1 NC SWSL NE	mg/L mg/L Units mg/L	EPA 300.0 SM18 5310B Method EPA 310.2	Notes Notes
Methane Sulfate as SO4 Total Organic Carbon Analyte Total Alkalinity Analyte Analyte Analyte Analyte Analyte	27 0.88 Results 370 Results 0.64	Flag D	1 1 DF 2	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL 0.071	5.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50	250 NE RE1 NC SWSL NE NC SWSL NE	mg/L mg/L Units mg/L	EPA 300.0 SM18 5310B Method EPA 310.2 Method Volatile Fatty Ackis	e de la composition della comp
Methane Sulfate as SO4 Total Organic Carbon Lent ID: 4103 II - 2 Analyte Fotal Alkalinity Lent ID: 4103 II - 7 Analyte Accepte Acid	27 0.88 Results 370	Flag D	1 1 DF 2	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL	5.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0	250 NE RE1 NC SWSL NE NC SWSL NE NE	mg/L mg/L Units mg/L	Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0	e de la composition della comp
Methane Sulfate as SO4 Total Organic Carbon Cont ID: 4103 II - 2 Analyte Total Alkalinity Cont ID: 4103 II - 7 Analyte Analyte Accit Acid Chloride	27 0.88 Results 370 Results 0.64	Flag D	1 1 DF 2	0.078 0.32 Lab 10: MDL 17 Lab 10: MDL 0.071 0.018 0.0002	5.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0 0.001	250 NE RE1 NC SWSL NE NC SWSL NE NE NE NE	mg/L mg/L Units mg/L Units mg/L	Method EPA 300.0 Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175	To the second
Methane Sulfate as SO4 Total Organic Carbon Lent 10: 4103 II - 2 Analyte Total Alkalinity Lent 10: 4103 II - 7 Analyte Acetic Acid Chloride Methane	27 0.88 Results 370 Results 0.64 58	Flag D	1 1 DF 2	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL 0.071 0.018	5.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0	250 NE RE1 NC SWSL NE NC SWSL NE NE	mg/L mg/L Units mg/L Units mg/L units	Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0	e de la composition della comp
Methane Sulfate as SO4 Total Organic Carbon Lent ID: 4103 II - 2 Analyte Fotal Alkalinity Lent ID: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N	27 0.88 Results 370 Results 0.64 58 0.450	Flag D	1 1 DF 2 DF 1 1	0.078 0.32 Lab 10: MDL 17 Lab 10: MDL 0.071 0.018 0.0002	5.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0 0.001	250 NE RE1 NC SWSL NE NC SWSL NE NE NE NE	mg/L mg/L Units mg/L Units mg/L mg/L mg/L	Method EPA 300.0 Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175	e de la composition della comp
Methane Sulfate as SO4 Total Organic Carbon Left ID: 4103 II - 2 Analyte Total Alkalinity Left ID: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4	27 0.88 Results 370 Results 0.64 58 0.450 0.33	Flag D Flag	1 1 DF 2 DF 1 1 1	0.078 0.32 MDL 17 Lab 1D: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3	5.0 1.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0 0.001 0.10 5.0 15	250 NE RE1 NC SWSL NE	mg/L mg/L Units mg/L Units mg/L mg/L mg/L mg/L	Method EPA 300.0 Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2	
Methane Sulfate as SO4 Total Organic Carbon Lent 10: 4103 II - 2 Analyte Total Alkalinity Lent 10: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23	Flag D Flag	1 1 DF 2	0.078 0.32 MDL 17 Lab 1D: MDL 0.071 0.018 0.0002 0.0056 0.078	5.0 1.0 1.0 (\$11892-02 MRL 30 (\$912221-01 MRL 0.50 5.0 0.001 0.10 5.0	250 NE RE1 NC SWSL NE NC SWSL NE NE NE 10 250	mg/L mg/L Units mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 300.0 Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0	
Methane Sulfate as SO4 Total Organic Carbon Lent ID: 4103 II - 2 Analyte Total Alkalinity Lent ID: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Fotal Alkalinity Fotal Organic Carbon	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59	Flag D Flag	1 1 DF 2 DF 1 1 1 1 1 1	0.078 0.32 MDL 17 Lab ID: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32	5.0 1.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0 0.001 0.10 5.0 15	250 NE RE1 NC SWSL NE NC SWSL NE NE NE NE NE NE NE NE NE NE	mg/L mg/L Units mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 300.0 Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2	
Methane Sulfate as SO4 Total Organic Carbon Lent ID: 4103 II - 2 Analyte Total Alkalinity Lent ID: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity Total Organic Carbon Lent ID: 4103 II - 7	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59 7.3	Flag D Flag	1 1 1 2 DF 2 1 1 1 1 1 1 1	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32 Lab ID: MDL	5.0 1.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0 0.001 0.10 5.0 15 1.0	250 NE RE1 NC SWSL NE NE NE NE NE NE NE NE NE NE NE NE NE	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/	Method EPA 300.0 SM18 5310B Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2 SM18 5310B	Notes
Methane Sulfate as SO4 Total Organic Carbon Lent 10: 4103 II - 2 Analyte Total Alkalinity Lent 10: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity Total Organic Carbon Lent 10: 4103 II - 7 Analyte	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59 7.3	Flag D Flag	1 1 1 DF 2	0.078 0.32 MDL 17 Lab 1D: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32	5.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0 0.001 0.10 5.0 15 1.0	250 NE RE1 NC SWSL NE NC SWSL NE NE NE NE NE NE NE NE NE NE	mg/L mg/L Units mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2 SM18 5310B	Notes
Methane Sulfate as SO4 Total Organic Carbon Analyte Total Alkalinity Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity Fotal Organic Carbon Analyte Carbon dioxide	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59 7.3	Flag J Flag D	DF 1 1 1 1 1 1 1 T 5	0.078 0.32 MDL 17 Lab 10: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32 Lab 10: MDL 3.90	5.0 1.0 C911892-02 MRL 30 C912221-01 MRL 0.50 5.0 0.001 0.10 5.0 15 1.0	250 NE RE1 NC SWSL NE	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 300.0 SM18 5310B Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2 SM18 5310B Method	Notes
Methane Sulfate as SO4 Total Organic Carbon Analyte Total Alkalinity Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity Total Organic Carbon Analyte Carbon dioxide Analyte Carbon dioxide Analyte Carbon dioxide Analyte Carbon dioxide	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59 7.3	Flag J Flag D	DF 1 1 1 1 1 1 1 T 5	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32 Lab ID: MDL 3.90 Lab ID: MDL	5.0 1.0 1.0 (S)11892-02 MRL 30 (C)12221-01 MRL 0.50 5.0 0.001 0.10 5.0 15 1.0 (C)12221-01	250 NE RE1 NC SWSL NE NE NE NE NE NE NE NE NE NE NE NE NE	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 300.0 SM18 5310B Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2 SM18 5310B Method RSK 175 Method	Notes
Methane Sulfate as SO4 Total Organic Carbon Analyte Total Alkalinity Left ID: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity Total Organic Carbon Left ID: 4103 II - 7 Analyte Carbon dioxide Left ID: 4103 II - 7 Analyte Larbon dioxide Left ID: 4103 II - 78 Analyte Larbon dioxide	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59 7.3	Flag Flag Flag D	DF 1 1 1 1 1 1 1 T 5 5	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32 Lab ID: MDL 3.90	5.0 1.0 (S911892-02) MRL 30 (S912221-01) MRL 0.50 5.0 0.001 0.10 5.0 15 1.0 (S912221-01) MRL 12.5	250 NE RE1 NC SWSL NE NE NE NE NE NE NE NE NE NE NE NE NE	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 300.0 SM18 5310B Method EPA 310.2 Method Volatile Fatty Ackls EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2 SM18 5310B Method RSK 175	Notes Notes
Methane Sulfate as SO4 Total Organic Carbon Lent ID: 4103 II - 2 Analyte Total Alkalinity Lent ID: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity Total Organic Carbon Lent ID: 4103 II - 7 Analyte Carbon dioxide Lent ID: 4103 II - 7B Analyte Carbon dioxide	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59 7.3	Flag Flag Flag D	1 1 1 DF 2 DF 1 1 1 1 1 1 1 1 1 1 1 1	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32 Lab ID: MDL 3.90 Lab ID: MDL	5.0 1.0 (S911892-02) MRL 30 (S912221-01) MRL 0.50 5.0 0.001 0.10 5.0 15 1.0 (S912221-01) MRL 12.5	250 NE RE1 NC SWSL NE NE NE NE NE NE NE NE NE NE NE NE NE	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 300.0 SM18 5310B Method EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2 SM18 5310B Method RSK 175 Method Volatile Fatty Acids EPA 300.0	Notes Notes
Methane Sulfate as SO4 Total Organic Carbon Lent 10: 4103 II - 2 Analyte Total Alkalinity Lent 10: 4103 II - 7 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Alkalinity Total Organic Carbon Lent 10: 4103 II - 7 Analyte Carbon dioxide	27 0.88 Results 370 Results 0.64 58 0.450 0.33 23 59 7.3 Results 320	Flag Flag Flag Flag Flag	DF 1 1 1 1 1 1 DF 5	0.078 0.32 Lab ID: MDL 17 Lab ID: MDL 0.071 0.018 0.0002 0.0056 0.078 8.3 0.32 Lab ID: MDL 3.90 Lab ID: MDL 0.071	5.0 1.0 (S911892-02) MRL 30 (S912221-01) MRL 0.50 5.0 0.001 0.10 5.0 15 1.0 (S912221-01) MRL 12.5	250 NE RE1 NC SWSL NE NE NE NE NE NE NE NE NE NE NE NE NE	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 300.0 SM18 5310B Method EPA 310.2 Method Volatile Fatty Ackis EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 EPA 310.2 SM18 5310B Method RSK 175 Method Volatile Fatty Ackis	Notes Notes



- Particular Control of the Control			y-847.25		1210-26-701-72-22-2-70-70	ALC COLORS		20-10-14-13-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-14-15-1	
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Total Alkalinity	99		1	8.3	15	NE	mg/L	EPA 310.2	
Total Organic Carbon	2.5		1	0.32	1.0	NE	mg/L	SM18 5310B	
New (10: 4103 II - 78	che strength at			Lab ID:	C912221-02	RE1	4440	**************************************	
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Sulfate as SO4	100	JD	2	0.16	10	250	mg/L	EPA 300.0	
lient ID: *4103 MW-14		(. 48-61	الله اللها (اللها	C912260-01		romania Sufferina d		
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetic Acid	0.58		1	0.071	0.50	NE	mg/L	Volatile Fatty Acids	
Carbon dioxide	85.5		1	0.780	2.50	NE	mg/L	RSK 175	
Chloride	3.3	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Methane	0.001		1	0.0002	0.001	NE	mg/L	RSK 175	
Nitrate as N	0.017	3	1	0.0056	0.10	10	mg/L	EPA 353.2	
Sulfate as SO4	2.0	j	1	0.078	5.0	250	mg/L	EPA 300.0	
Total Alkalinity	19		1	8.3	15	NE	mg/L	EPA 310.2	
lent.10; 4103 11-28	gi en deutstere valuet.		ij literatu	Lab JD:	C912260-02			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	agrett.
ntal taka 2 mili mengamban kelada dan balan balan bahan dan bangan perama Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Chloride	10	·····	1	0.018	5.0	NE NE	mg/L	EPA 300.0	
Lactic Acid	0.46	j	1	0.088	0.50	NE	mg/L	Volatile Fatty Acids	
Methane	1.13	,	1	0.0002	0.001	NE	mg/L	RSK 175	
Nitrate as N	0.41	j	1	0.0056	0.10	10	mg/L	EPA 353.2	
Sulfate as SO4	21	j	1	0.078	5.0	250	mg/L	EPA 300.0	
Total Organic Carbon	2.1	,	1	0.32	1.0	NE NE	mg/L	SM18 5310B	
lent ID: 4103 II-28			gar filiak	Lab ID:	C912260-02	RE1	か 2年2 年 、年 ようなもの		Alexander No.
Analyte	ennel out a particulars	A Second	01.00	a artistifter in	Color Mark Haller		4. 2.886.30	to a little of the latter of t	Contractor & parties
	Doculte	Elan	DE	MDI	MDI	NC SWSL	Units	Method	Notes
	Results 235	Flag	DF	MDL 3.90	MRL 12.5	NC SWSL	Units mg/l	Method RSK 175	Notes
Carbon dioxide	235 220	Flag D D	DF 5	MDL 3.90 17	MRL 12.5 30	NC SWSL NE NE	Units mg/L mg/L	Method RSK 175 EPA 310.2	Notes
Carbon dioxide Total Alkalinity	235 220	D D	5	3.90 17	12.5 30	NE NE	mg/L mg/L	RSK 175 EPA 310.2	Notes
Carbon dioxide Total Alkalinity cont ID: 34103 II-9	235 220	D D	5 2	3.90 17	12.5 30 C912260-03	NE NE	mg/L mg/L	RSK 175 EPA 310.2	en karantan da karantan da Karantan da karantan da ka
Carbon dioxide Total Alkalinity Lent ID: 4103 II-9 Analyte	235 220	D D	5	3.90 17	12.5 30	NE NE	mg/L mg/L	RSK 175 EPA 310.2	Notes Notes
Carbon dioxide Total Alkalinity Igrit ID: 4103 II-9 Analyte Acetic Acid	235 220 Results 0.39	D D Flag	5 2 DF	3.90 17 Lab ID: 3 MDL 0.071	12.5 30 C912260-03 MRL 0.50	NE NE NC SWSL	mg/L mg/L Units	RSK 175 EPA 310.2 Method	en karantan da karantan da Karantan da karantan da ka
Carbon dioxide Total Alkalinity Fig. 10: 4103 II-9 Analyte Acetic Acid Chloride	235 220 Results 0.39 10	D D Flag	5 2 DF 1	3.90 17 Lab ID: 3 MDL 0.071 0.018	12.5 30 C912260-03 MRL 0.50 5.0	NE NE NC SWSL NE NE	mg/L mg/L Units mg/L mg/L	RSK 175 EPA 310.2 Method Volatile Fatty Acids EPA 300.0	
Carbon dioxide Total Alkalinity Lent ID: 4103 II-9 Analyte Acetic Acid Chloride Methane	235 220 Results 0.39 10 0.085	D D Flag	5 2 DF 1 1	3.90 17 Lab ID: 3 MDL 0.071 0.018 0.0002	12.5 30 C912260-03 MRL 0.50 5.0 0.001	NE NE NC SWSL NE NE NE	mg/L mg/L Units mg/L mg/L mg/L	RSK 175 EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175	en karantan da karantan da Karantan da karantan da ka
Carbon dioxide Total Alkalinity Lent ID: 4103 II-9 Analyte Acetic Acid Chloride Methane Nitrate as N	235 220 Results 0.39 10 0.085 0.077	D D Flag J	5 2 DF 1 1 1	3.90 17 Lab ID: 3 MDL 0.071 0.018 0.0002 0.0056	12.5 30 C912260-03 MRL 0.50 5.0 0.001 0.10	NE NE NC SWSL NE NE NE NE 10	mg/L mg/L Units mg/L mg/L mg/L	RSK 175 EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2	
Carbon dioxide Total Alkalinity Lent ID: 4103 II-9 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4	235 220 Results 0.39 10 0.085	D D Flag	5 2 DF 1 1	3.90 17 Lab ID: 3 MDL 0.071 0.018 0.0002	12.5 30 C912260-03 MRL 0.50 5.0 0.001	NE NE NC SWSL NE NE NE	mg/L mg/L Units mg/L mg/L mg/L	RSK 175 EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175	
Carbon dioxide Total Alkalinity lent ID: 4103 II-9 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Organic Carbon	235 220 Results 0.39 10 0.085 0.077 16 2.5	D D Flag J	5 2 DF 1 1 1 1 1	3.90 17 Lab ID: A MDL 0.071 0.018 0.0002 0.0056 0.078 0.32	12.5 30 C912260-03 MRL 0.50 5.0 0.001 0.10 5.0	NE 10 250 NE	mg/L mg/L Units mg/L mg/L mg/L mg/L	RSK 175 EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 SM18 5310B	Notes
Carbon dioxide Total Alkalinity Jent ID: 4103 II-9 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Organic Carbon Jent ID: 4103 II-9	235 220 Results 0.39 10 0.085 0.077 16 2.5	D D Flag J J	5 2 DF 1 1 1 1 1 1 1	3.90 17 Lab ID; MDL 0.071 0.018 0.0002 0.0056 0.078 0.32	12.5 30 C912260-03 MRL 0.50 5.0 0.001 0.10 5.0 1.0	NE 10 250 NE	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L	RSK 175 EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 SM18 5310B	Notes
Carbon dioxide Total Alkalinity Jent ID: 4103 II-9 Analyte Acetic Acid Chloride Methane Nitrate as N Sulfate as SO4 Total Organic Carbon	235 220 Results 0.39 10 0.085 0.077 16 2.5	D D Flag J	5 2 DF 1 1 1 1 1	3.90 17 Lab ID: A MDL 0.071 0.018 0.0002 0.0056 0.078 0.32	12.5 30 C912260-03 MRL 0.50 5.0 0.001 0.10 5.0 1.0	NE NE NC SWSL NE NE NE 10 250 NE	mg/L mg/L Units mg/L mg/L mg/L mg/L	RSK 175 EPA 310.2 Method Volatile Fatty Acids EPA 300.0 RSK 175 EPA 353.2 EPA 300.0 SM18 5310B	Notes



ANALYTICAL RESULTS

Description: 4103 II - 1

Lab Sample ID: C911892-01

Received: 10/17/09 09:45

Matrix: Ground Water

Sampled: 10/16/09 10:00

Work Order: C911892

Project: White Street Landfill MNA

Sampled By: Connel Ware

Classical (Chemistry	/ Parameters
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^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number] Chloride [16887-00-6] ^	Results 410	Flag D	<u>Units</u> mg/L	DF 10	MDL 0.18	MRL 50	NC SWSL NE	Method EPA 300.0	Analyzed 10/19/09 14:38	By PEV	<u>Notes</u>
Nitrate as N [14797-55-8] ^	0.028	j	mg/L	1	0.0056	0.10	10	EPA 353.2	10/20/09 08:55	PEV	
Sulfate as SO4 [14808-79-8] ^	12	3	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 06:51	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	10/23/09 14:20	AJB	
Total Alkalinity [471-34-1] ^	320	D	mg/L	5	42	75	NE	EPA 310.2	10/18/09 09:41	PEV	

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	30		mg/L	1	0.32	1.0	NE	SM18 5310B	10/21/09 15:17	NAS	

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
Carbon dioxide [124-38-9]	733	D	mg/L	10	7.80	25.0	NE	RSK 175	10/23/09 11:10	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:38	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:38	LAC	
Methane [74-82-8]	0.266		mg/L	1	0.0002	0.001	NE	RSK 175	10/23/09 10:38	LAC	



Description: 4103 II - 1

Lab Sample ID: C911892-01

Received: 10/17/09 09:45

Matrix: Ground Water

Sampled: 10/16/09 10:00

Work Order: C911892

Project: White Street Landfill MNA

Sampled By: Connel Ware

Volatile Fatty Acids by HPLC

Analyte [CAS Number] Acetic Acid [64-19-7]	<u>Results</u> 25	Flag	<u>Units</u> mg/L	<u>DF</u>	MDL 0.071	MRL 0.50	NC SWSL NE	Method Volatile Fatty Acids	Analyzed 10/21/09 16:12	By LAC	Notes
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	10/21/09 16:12	LAC	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	10/21/09 16:12	LAC	
HIBA (2-Hydroxyisobutyric Acid)	3.4		mg/L	1	0.098	0.50		Volatile Fatty Acids	10/21/09 16:12	LAC	
[594-61-6] iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	10/21/09 16:12	LAC	
iso-Pentanoic Acid [503-74-2]	0.13	Ü	mg/L	1	0.13	0.50		Volatile Fatty Acids	10/21/09 16:12	LAC	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	10/21/09 16:12	LAC	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	10/21/09 16:12	LAC	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	10/21/09 16:12	LAC	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	10/21/09 16:12	LAC	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	62	1	50.0	124 %	80-	124	9320013	Volatile Fatty Acids	10/21/09 16:12	LAC	



Lab Sample ID: C911892-02

Received: 10/17/09 09:45

Matrix: Ground Water

Sampled: 10/16/09 12:50

Work Order: C911892

Project: White Street Landfill MNA

Sampled By: Connel Ware

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number] Chloride [16887-00-6] ^ Nitrate as N [14797-55-8] ^	Results 11 0.0056	Flag U	Units mg/L mg/L	DE 1	MDL 0.018 0.0056	MRL 5.0 0.10	NC SWSL NE 10	Method EPA 300.0 EPA 353.2	Analyzed 10/19/09 07:41 10/20/09 08:55	By PEV PEV	Notes
Sulfate as SO4 [14808-79-8] ^ Sulfate [18496-25-8] ^	0.0056 27 0.031	J U	mg/L mg/L	1	0.0036 0.078 0.031	5.0 0.10	250 1	EPA 300.0 SM18 4500-S D	10/19/09 07:41 10/23/09 14:20	PEV AJB	
Total Alkalinity [471-34-1] ^	370	D	mg/L	2	17	30	NE	EPA 310.2	10/18/09 09:27	PEV	

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	By	Notes
Total Omanic Carbon [FCI -0165] ^	0.88	1	ma/L	1	0.32	1.0	NE	SM18 5310B	10/21/09 15:17	NAS	



Lab Sample ID: C911892-02

Received: 10/17/09 09:45

Matrix: Ground Water

Sampled: 10/16/09 12:50

Work Order: C911892

Project: White Street Landfill MNA

Sampled By: Connel Ware

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	By	<u>Notes</u>
Carbon dioxide [124-38-9]	110		mg/L	1	0.780	2.50	NE	RSK 175	10/23/09 10:16	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:16	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:16	LAC	
Methane [74-82-8]	1.06		mg/L	1	0.0002	0.001	NE	RSK 175	10/23/09 10:16	LAC	



Lab Sample ID: C911892-02

Received: 10/17/09 09:45

Matrix: Ground Water

Sampled: 10/16/09 12:50

Work Order: C911892

Project: White Street Landfill MNA

Sampled By: Connel Ware

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	Units	DE	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
Acetic Acid [64-19-7]	0.071	U	mg/L	1	0.071	0.50	NE	Volatile Fatty Acids	10/21/09 17:14	LAC	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	10/21/09 17:14	LAC	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	10/21/09 17:14	LAC	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	10/21/09 17:14	LAC	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	10/21/09 17:14	LAC	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	10/21/09 17:14	LAC	
Lactic Acid [50-21-5]	0.17	J	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	10/21/09 17:14	LAC	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	10/21/09 17:14	LAC	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	10/21/09 17:14	LAC	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	10/21/09 17:14	LAC	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	63	1	50.0	125 %	80-	124	9320013	Volatile Fatty Acids	10/21/09 17:14	LAC	QA-03



Lab Sample ID: C912221-01

Received: 10/20/09 11:00

Matrix: Water

Sampled: 10/19/09 12:45 Project: White Street Landfill MNA Sampled By: Gary Simcox

Work Order: C912221

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	58		mg/L	1	0.018	5.0	NE	EPA 300.0	10/26/09 06:55	PÉV	
Nitrate as N [14797-55-8] ^	0.33	j	mg/L	1	0.0056	0.10	10	EPA 353.2	10/27/09 08:04	PEV	
Sulfate as SO4 [14808-79-8] ^	23	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/26/09 06:55	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	10/23/09 14:20	AJB	
Total Alkalinity [471-34-1] ^	59		mg/L	1	8.3	15	NE	EPA 310.2	10/25/09 14:09	PEV	



Lab Sample ID: C912221-01

Received: 10/20/09 11:00

Matrix: Water

Sampled: 10/19/09 12:45

Work Order: C912221

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical	Chamieter	Parameters
Classical	CHERRISHA	rafameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Omanic Carbon [ECI -0165] ^	7.3		ma/l	1	0.32	1.0	NE	SM18 5310B	10/28/09 13:24	RSA	

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	Method	<u>Analyzed</u>	By	<u>Notes</u>
Carbon dioxide [124-38-9]	320	D	mg/L	5	3.90	12.5	NE	RSK 175	10/23/09 11:23	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:49	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:49	LAC	
Methane [74-82-8]	0.450		mg/L	1	0.0002	0.001	NE	RSK 175	10/23/09 10:49	LAC	



Lab Sample ID: C912221-01

Received: 10/20/09 11:00

Matrix: Water

Project: White Street Landfill MNA

Sampled: 10/19/09 12:45 Sampled By: Gary Simcox Work Order: C912221

Volatile Fatty Acids by HPLC

Analyte [CAS Number] Acetic Acid [64-19-7]	Results 0.64	Flag	Units mg/L	<u>DF</u>	MDL 0.071	MRL 0.50	NC SWSL NE	Method Volatile Fatty Acids	Analyzed 10/23/09 14:56	By MYE	<u>Notes</u>
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	10/23/09 14:56	MYE	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	10/23/09 14:56	MYE	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	10/23/09 14:56	MYE	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	10/23/09 14:56	MYE	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	10/23/09 14:56	MYE	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	10/23/09 14:56	MYE	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	10/23/09 14:56	MYE	
Propionic Acid [79-09-4]	0.054	υ	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	10/23/09 14:56	MYE	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	10/23/09 14:56	MYE	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	69	1	50.0	137 %	80-	124	9323006	Volatile Fatty Acids	10/23/09 14:56	MYE	QA-03



Lab Sample ID: C912221-02

Received: 10/20/09 11:00

Matrix: Water

Sampled: 10/19/09 10:10

Work Order: C912221

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>D</u> E	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	4.7	J	mg/L	1	0.018	5.0	NE	EPA 300.0	10/26/09 07:11	PEV	
Nitrate as N [14797-55-8] ^	0.28	j	mg/L	1	0.0056	0.10	10	EPA 353.2	10/27/09 08:04	PEV	
Sulfate as SO4 [14808-79-8] ^	100	JD	mg/L	2	0.16	10	250	EPA 300.0	10/26/09 08:29	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	10/23/09 14:20	GPW	
Total Alkalinity [471-34-1] ^	99		mg/L	1	8.3	15	NE	EPA 310.2	10/25/09 14:10	PEV	



Lab Sample ID: C912221-02

Received: 10/20/09 11:00

Matrix: Water

Project: White Street Landfill MNA

Sampled: 10/19/09 10:10
Sampled By: Gary Simcox

Work Order: C912221

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
Total Organic Carbon [ECL-0165] ^	2.5		mg/L	1	0.32	1.0	NE	SM18 5310B	10/28/09 13:24	RSA	



Lab Sample ID: C912221-02

Received: 10/20/09 11:00

Matrix: Water

Sampled: 10/19/09 10:10

Work Order: C912221

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number] Carbon dioxide [124-38-9]	Results 0.780	Flag U	Units mg/L	DE	MDL 0.780	MRL 2.50	NC SWSL NE	Method RSK 175	Analyzed 10/23/09 10:53	By LAC	<u>Notes</u>
Ethane [74-84-0]	0.0004	υ	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:53	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:53	LAC	
Methane [74-82-8]	0.023		mg/L	1	0.0002	0.001	NE	RSK 175	10/23/09 10:53	LAC	



Lab Sample ID: C912221-02

Received: 10/20/09 11:00

Matrix: Water

Sampled: 10/19/09 10:10

Work Order: C912221

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number] Acetic Acid [64-19-7]	Results 0.53	Flag	Units mg/L	<u>DF</u>	MDL 0.071	MRL 0.50	NC SWSL NE	Method Volatile Fatty Acids	Analyzed 10/23/09 15:59	By Mye	<u>Notes</u>
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	10/23/09 15:59	MYE	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	10/23/09 15:59	MYE	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	10/23/09 15:59	MYE	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	10/23/09 15:59	MYE	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	10/23/09 15:59	MYE	
Lactic Acid [50-21-5]	0.088	υ	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	10/23/09 15:59	MYE	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	10/23/09 15:59	MYE	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	10/23/09 15:59	MYE	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	10/23/09 15:59	MYE	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	65	1	50.0	130 %	80-	124	9323006	Volatile Fatty Acids	10/23/09 15:59	MYE	QA-03



Lab Sample ID: C912260-01

Received: 10/21/09 13:30

Matrix: Ground Water

Sampled: 10/20/09 18:00

Work Order: C912260

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	<u>В</u> у	<u>Notes</u>
Chloride [16887-00-6] ^	3.3	J	mg/L	1	0.018	5.0	NE	EPA 300.0	10/26/09 07:26	PEV	
Nitrate as N [14797-55-8] ^	0.017	J	mg/L	1	0.0056	0.10	10	EPA 353.2	11/03/09 11:47	PEV	
Sulfate as SO4 [14808-79-8] ^	2.0	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/26/09 07:26	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	10/26/09 16:00	GPW	
Total Alkalinity [471-34-1] ^	19		mg/L	1	8.3	15	NE	EPA 310.2	10/25/09 14:11	PEV	



Lab Sample ID: C912260-01

Received: 10/21/09 13:30

Matrix: Ground Water

Sampled: 10/20/09 18:00

Work Order: C912260

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	0.32	U	mg/L	1	0.32	1.0	NE	SM18 5310B	10/28/09 23:05	RSA	



Lab Sample ID: C912260-01

Received: 10/21/09 13:30

Matrix: Ground Water

Sampled: 10/20/09 18:00

Work Order: C912260

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number] Carbon dioxide [124-38-9]	Results 85.5	<u>Flag</u>	Units mg/L	<u>DF</u>	MDL 0.780	MRL 2.50	NC SWSL NE	Method RSK 175	Analyzed 10/23/09 10:57	<u>By</u> LAC	<u>Notes</u>
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:57	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 10:57	LAC	
Methane [74-82-8]	0.001		mg/L	1	0.0002	0.001	NE	RSK 175	10/23/09 10:57	LAC	



Lab Sample ID: C912260-01 **Sampled:** 10/20/09 18:00

Received: 10/21/09 13:30

Matrix: Ground Water

Sampled: 10/20/03 10:00

Work Order: C912260

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number] Acetic Acid [64-19-7]	Results 0.58	<u>Flag</u>	Units mg/L	DF	MDL 0.071	MRL 0.50	NC SWSL NE	Method Volatile Fatty Acids	Analyzed 10/23/09 17:01	By MYE	<u>Notes</u>
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	10/23/09 17:01	MYE	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	10/23/09 17:01	MYE	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	10/23/09 17:01	MYE	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	10/23/09 17:01	MYE	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	10/23/09 17:01	MYE	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	10/23/09 17:01	MYE	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	10/23/09 17:01	MYE	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	10/23/09 17:01	MYE	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	10/23/09 17:01	MYE	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	65	1	50.0	131 %	80-	124	9323006	Volatile Fatty Acids	10/23/09 17:01	MYE	QA-03



Lab Sample ID: C912260-02

Received: 10/21/09 13:30

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled: 10/20/09 15:45

Sampled By: Gary Simcox

Work Order: C912260

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	10		mg/L	1	0.018	5.0	NE	EPA 300.0	10/26/09 07:42	PEV	
Nitrate as N [14797-55-8] ^	0.41	j	mg/L	1	0.0056	0.10	10	EPA 353.2	11/03/09 11:47	PEV	
Sulfate as SO4 [14808-79-8] ^	21	3	mg/L	1	0.078	5.0	250	EPA 300.0	10/26/09 07:42	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	10/26/09 16:00	GPW	
Total Alkalinity [471-34-1] ^	220	D	mg/L	2	17	30	NE	EPA 310.2	10/29/09 08:40	PEV	

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	2.1		mg/L	1	0.32	1.0	NE	SM18 5310B	10/28/09 23:05	RSA	

Dissolved Gases by GC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
Carbon dioxide [124-38-9]	235	D	mg/L	5	3.90	12.5	NE	RSK 175	10/23/09 11:27	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 11:01	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	10/23/09 11:01	LAC	
Methane [74-82-8]	1.13		mg/L	1	0.0002	0.001	NE	RSK 175	10/23/09 11:01	LAC	



Lab Sample ID: C912260-02

Received: 10/21/09 13:30

Matrix: Ground Water

Sampled: 10/20/09 15:45

Work Order: C912260

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>D</u> E	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	0.071	U	mg/L	1	0.071	0.50	NE	Volatile Fatty Acids	10/23/09 18:04	MYE	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	10/23/09 18:04	MYE	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	10/23/09 18:04	MYE	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	10/23/09 18:04	MYE	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	10/23/09 18:04	MYE	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	10/23/09 18:04	MYE	
Lactic Acid [50-21-5]	0.46	J	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	10/23/09 18:04	MYE	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	10/23/09 18:04	MYE	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	ΝE	Volatile Fatty Acids	10/23/09 18:04	MYE	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	10/23/09 18:04	MYE	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	64	1	50.0	127 %	80-	124	9323006	Volatile Fatty Acids	10/23/09 18:04	MYE	QA-03



Analyte [CAS Number]

Carbon dioxide [124-38-9]

Ethane [74-84-0]

Ethene [74-85-1]

Methane [74-82-8]

Lab Sample ID: C912260-03

Received: 10/21/09 13:30

Matrix: Ground Water

Sampled: 10/20/09 12:00

NC SWSL

NE

NE

NE

NE

Method

RSK 175

RSK 175 RSK 175

RSK 175

Work Order: C912260

<u>Analyzed</u>

10/23/09 11:31

10/23/09 11:04

10/23/09 11:04

10/23/09 11:04

Ву

LAC

LAC

LAC

LAC

Notes

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters ^ - ENCO Cary certified analyte [NC 591]											
^ - ENCO Cary certified analyte [NC 591]											
Analyte [CAS Number] Resu	lts <u>F</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	Notes
Chloride [16887-00-6] ^ 10			mg/L	1	0.018	5.0	NE	EPA 300.0	10/26/09 07:58	PEV	
Nitrate as N [14797-55-8] ^ 0.07	7	J	mg/L	1	0.0056	0.10	10	EPA 353.2	11/03/09 11:47	PEV	
Sulfate as SO4 [14808-79-8] ^ 16		3	mg/L	1	0.078	5.0	250	EPA 300.0	10/26/09 07:58	PEV	
Sulfide [18496-25-8] ^ 0.03	1	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	10/26/09 16:00	GPW	
Total Alkalinity [471-34-1] ^ 190)	D	mg/L	2	17	30	NE	EPA 310.2	10/29/09 08:41	PEV	
Classical Chemistry Parameters				·							
^ - ENCO Orlando certified analyte [NC 424]											
Analyte [CAS Number] Resu	lts F	lag	<u>Units</u>	DĒ	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	<u>By</u>	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^ 2.5			mg/L	1	0.32	1.0	NE	SM18 5310B	10/28/09 23:05	RSA	

DΕ

1

1

<u>MDL</u>

3.90

0.0004

0.0004

0.0002

MRL

12.5

0.002

0.002

0.001

Flag

D

U

U

<u>Results</u>

280

0.0004

0.0004

0.085

<u>Units</u>

mg/L

mg/L

mg/L

mg/L



Lab Sample ID: C912260-03 **Sampled:** 10/20/09 12:00

Received: 10/21/09 13:30

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C912260

Volatile Fatty Acids by HPLC

Analyte [CAS Number] Acetic Acid [64-19-7]	Results 0.39	Flag	Units mg/L	DF	MDL 0.071	MRL 0.50	NC SWSL NE	Method Volatile Fatty Acids	Analyzed 10/23/09 19:07	By MYE	<u>Notes</u>
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	10/23/09 19:07	MYE	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	10/23/09 19:07	MYE	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	10/23/09 19:07	MYE	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	10/23/09 19:07	MYE	
iso-Pentanoic Acid [503-74-2]	0.13	υ	mg/L	1	0.13	0.50		Volatile Fatty Acids	10/23/09 19:07	MYE	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	10/23/09 19:07	MYE	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	10/23/09 19:07	MYE	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	10/23/09 19:07	MYE	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	10/23/09 19:07	MYE	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	64	1	50.0	129 %	80-	124	9323006	Volatile Fatty Acids	10/23/09 19:07	MYE	QA-03



Classical Chemistry Parameters - Quality Control

Batch 9J18002 - NO PREP

Blank (9J18002-BLK1)

Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:44

Analyte	Result	Flag	MRL	Units	Spile Source SREC RPD Limit Notes
Total Alkalinity	8.3	U	15	ma/L	

LCS (9J18002-BS1)

Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:45

Analyte	Result Flag	MRL	Units				RPD Limit Notes
Total Alkalinity	100	15	ma/L	100	102	80-120	

Matrix Spike (9J18002-MS1)

Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:49

Source: C911016-03

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	₩ ŘEČ	%REC Limits	RPD Limit Notes
Total Alkalinity	96	15	mg/L	100	3.5	93	80-120	-

Matrix Spike Dup (9J18002-MSD1)

Source: C911016-03

Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:50

Analyte Trans	Result - Pag	MRL	- Units	Spike Level	Source Result	-%REC	%REC Limits	RPD	RPD Limit	
Total Alkalinity	99	15	mg/L	100	3.5	96	80-120	3	25	

Batch 9J18005 - NO PREP

Blank (9J18005-BLK1)

Prepared: 10/18/2009 07:22 Ana	lyzed: 10/18/2009 21:26
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Analyte	Result	Flag	MRL	Units .	Splite Source %REC RPD Limit Notes
Chloride	0.018	U	5.0	mg/L	
Sulfate as SO4	0.078	U	5.0	mg/L	

LCS (9J18005-BS1)

Prepared: 10/18/2009 07:22 Analyzed: 10/18/2009 21:43

Analyte	Result Flag	MRL	. Volts		Source	%REC RPD Limits RPD Limit Notes
Chloride	46	5.0	mg/L	50.0	91	90-110
Sulfate as SO4	47	5.0	mg/L	50.0	95	90-110

Matrix Spike (9J18005-MS1)

Prepared: 10/18/2009 07:22 Analyzed: 10/18/2009 22:00

Source: C911016-03

Analyte 6	Result Flag	MRL	STANDARDA	Spike Level	Source Result		%REC Limits	RPD Limit Notes
Chloride	50	5.0	mg/L	50.0	5.0	90	80-120	
Sulfate as SO4	52	5.0	mg/L	50.0	5.5	94	80-120	

Matrix Spike Dup (9J18005-MSD1)

Source: C911016-03

Prepared: 10/18/2009 07:22 Analyzed: 10/18/2009 22:16

Analyte	Result Flag	MRL	Units	Splike Level	Source Result	%REC	%REC Limits	RPD	RPD . Limit	Notes
Chloride	50	5.0	mg/L	50.0	5.0	90	80-120	0.5	15	
Sulfate as SO4	52	5.0	mg/L	50.0	5.5	94	80-120	0.1	15	



Classical Chemistry Parameters - Quality Control

Batch 9J18005 - NO PREP

Batch 9J23026 - NO PREP

Blank (9J23026-BLK1)

Prepared & Analyzed: 10/23/2009 14:20

Analyte			MRL Unit	Spite Source Level Result 95/RE	Werec RPD Limit Notes
Sulfide	0.031	U	0.10 mg/l		

LCS (9J23026-BS1)

Prepared & Analyzed: 10/23/2009 14:20

Analyt	Résult Flag	MRL	Units	Spike Level	Source Result %REC		RPD Limit Notes
Sulfide	0.41	0.10	ma/L	0.401	102	80-120	

Matrix Spike (9J23026-MS1)

Prepared & Analyzed: 10/23/2009 14:20

Source: C911892-01

Analys	Regist -Flag	MRL	ับกระ	Solle Level	Source Result	%REC	SAREC Limits	RPD Limit Notes
Sulfide	0.18	0.10	mg/L	0.401	0.031 U	45	80-120	QM-07

Matrix Spike Dup (9J23026-MSD1)

Prepared & Analyzed: 10/23/2009 14:20

Source: C911892-01

Analyte	Result Flag	HRL	Units	Splice Level :	Source Result	%REC	y REC Limits	RPD_	RPD Limit	- Notes
Sulfide	0.13	0.10	mg/L	0.401	0.031 U	33	80-120	30	25	QM-07

Batch 9J25003 - NO PREP

Blank (9J25003-BLK1)

Prepared: 10/25/2009 07:30 Analyzed: 10/26/2009 00:01

Analyte variation is a second of the second	Result			Units	Solice Source 96REC RPD Level Result %REC Limits RPD Limit Notes
Chloride	0.018	U	5.0	mg/L	
Sulfate as SO4	0.078	U	5.0	mg/L	

LCS (9J25003-BS1)

Prepared: 10/25/2009 07:30 Analyzed: 10/26/2009 00:16

Analyte	Result Flag	MRL	Units	Spike Level	Source :: Result / %REC	%REC Limits RP	RPD
Chloride	47	5.0	mg/L	50.0	94	90-110	
Sulfate as SO4	47	5.0	mg/L	50.0	93	90-110	

Matrix Spike (9J25003-MS1)

Prepared: 10/25/2009 07:30 Analyzed: 10/26/2009 00:32

Source: C910602-04

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	96REC Limits	RPD Limit Notes
Chloride	97	5.0	mg/L	50.0	50	94	80-120	
Sulfate as SO4	77	5.0	mg/L	50.0	28	97	80-120	

Matrix Spike Dup (9J25003-MSD1)

Prepared: 10/25/2009 07:30 Analyzed: 10/26/2009 00:48

Source: C910602-04

Spilke Source %REC RPD Analyte Result Flag MRL Units Level Result %REC Limits RPD Limit Notes		Analyte	Result Flag MRL	Spike Source Units Level Result	%REC Limits RPD	RPD Notes
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Classical Chemistry Parameters - Quality Control

Batch 9J25003 - NO PREP

Matrix Spike Dup (9J25003-MSD1) Continued

Source: C910602-04

Prepared: 10/25/2009 07:30 Analyzed: 10/26/2009 00:48

ATOMY OF THE PROPERTY OF THE P	Result Flag	MRL	Valts :		Source Result	%REC	%REC "Units		RPD Link	* (Notes
Chloride	97	5.0	mg/L	50.0	50	95	80-120	0.3	15	
Sulfate as SO4	77	5.0	mg/L	50.0	28	97	80-120	0.2	15	

Batch 9J25005 - NO PREP

Blank (9J25005-BLK1)

Prepared: 10/25/2009 11:29 Analyzed: 10/25/2009 13:54

Analyte .	Result	Flag	MRL		Spile Source PAREC Limits RPD Limit Notes
Total Alkalinity	8.3	U	15	mg/L	

LCS (9J25005-BS1)

Prepared: 10/25/2009 11:29 Analyzed: 10/25/2009 13:55

Analyte	Result Flag	HRL	Units		Source Result - MREC	SARC Units	RPD almit Notes
Total Alkalinity	99	15	mg/L	100	99	80-120	

Matrix Spike (9J25005-MS1)

Source: C910605-01

Prepared: 10/25/2009 11:29 Analyzed: 10/25/2009 13:57

Arialyte 1887 (1885)					Source (- NAEC-		RPD PD HELITAN
Total Alkalinity	150	15	mg/L	100	68	81	80-120	

Matrix Spike Dup (9325005-MSD1)

Source: C910605-01

Prepared: 10/25/2009 11:29 Analyzed: 10/25/2009 13:57

Analya	Resilit Flag	MRL	vals		Source Result	Lake	%AREC Units	RPD :	RPO LUMN 2	NOW -
Total Alkalinity	150	15	mg/L	100	68	83	80-120	1	25	

Batch 9J26025 - NO PREP

Blank (9J26025-BLK1)

Prepared & Analyzed: 10/26/2009 16:00

Analyte	Result	Flag	MRL	Units	Spike Source MAREC NPD Limit Notes
Sulfide	0.031	U	0.10	mg/L	

LCS (9J26025-BS1)

Prepared & Analyzed: 10/26/2009 16:00

Analyte	Result Flag	MRL	Units	, Solice ⊥Level	Source Seric RPD Result Seric Limit Notes
Sulfide	0.41	0.10	mg/L	0.401	101 80-120

Matrix Spike (9J26025-MS1)

Source: C912260-01

Prepared & Analyzed: 10/26/2009 16:00

Analyte	Result Flag	MRL	Units	Spike Level	Document	- %REC	%REC Limits	RPD Limit Not	
Sulfide	0.36	0.10	mg/L	0.401	-0.009	91	80-120		



Classical Chemistry Parameters - Quality Control

Batch 9J26025 - NO PREP

Matrix Spike Dup (9J26025-MSD1)

Source: C912260-01

Prepared & Analyzed: 10/26/2009 16:00

Analyte	Result Flag	*MRL	" Units	Spike . Level	Source Result	WREC	ALREC -	RPD	- RPD -	Notes
Sulfide	0.36	0.10	mg/L	0.401	-0.009	91	80-120	0.6	25	

Batch 9J29002 - NO PREP

Blank (9J29002-BLK1)

Prepared: 10/29/2009 07:42 Analyzed: 10/29/2009 08:32

Analyte	Result	Flag	MRL	Ünits	Spike Source WREC RPD RPD Limit Notes
Total Alkalinity	8.3	U	15	mg/L	

LCS (9J29002-BS1)

Prepared: 10/29/2009 07:42 Analyzed: 10/29/2009 08:33

Analyte ()	Result Flag	MRL	Units	Spike Level	Source Result SAREC	PAREC RPD Limits RPD Limit Notes
Total Alkalinity	100	15	mg/L	100	101	80-120

Matrix Spike (9J29002-MS1)

Source: C910608-01

Prepared: 10/29/2009 07:42 Analyzed: 10/29/2009 08:35

Analyti (Analyti)	Result Flag	MRL 5	Units	Spile:	TE SOUTH TO	SAREC	VAEC	RPD I LIMIN N	tes .
Total Alkalinity	110	15	ma/l	100	32	82	80-120		

Matrix Spike Dup (9J29002-MSD1)

Prepared: 10/29/2009 07:42 Analyzed: 10/29/2009 08:36

Source: C910608-01

Analyte See	Result Fleg	MRL	Units	Spike Level	Spurce Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	110	15	mg/L	100	32	74	80-120	7	25	QM-07

QUALITY CONTROL

Dissolved Gases by GC - Quality Control

Batch 9J21008 - NO PREP ANALYTIX

Blank (9J21008-BLK1)

Prepared: 10/21/2009 10:53 Analyzed: 10/23/2009 09:18

Analyte	Result	Flag	MRL	Units	Spile Source %REC RPD Level Result %REC Limits RPD Limit. Notes
Carbon dioxide	0.780	υ	2.50	mg/L	
Ethane	0.0004	U	0.002	mg/L	
Ethene	0.0004	U	0.002	mg/L	
Methane	0.0002	U	0.001	mg/L	

LCS (9J21008-BS1)

Prepared: 10/21/2009 10:53 Analyzed: 10/23/2009 09:26

Analyte	Result Flag	MRL	Units	Spike "Level	Source Result %REC	%REC Limits	RPD Limit Notes
Carbon dioxide	23.2	2.50	mg/L	26.3	88	71-119	10
Ethane	0.181	0.002	mg/L	0.179	101	75-123	14
Ethene	0.160	0.002	mg/L	0.167	96	72-131	12
Methane	0.0970	0.001	mg/L	0.0958	101	74-116	18



Dissolved Gases by GC - Quality Control

Batch 9J21008 - NO PREP ANALYTIX

Matrix Spike (9J21008-MS1)

Prepared: 10/21/2009 10:53 Analyzed: 10/23/2009 09:36

Prepared: 10/21/2009 10:53 Analyzed: 10/23/2009 09:40

Source: C911892-02

Analyte	Result Fla	g MRL	Units	Splice . Level	Source Résult	%REC	%REC Limits	RPD Limit	Notes
Carbon dioxide	136	2.50	mg/L	26.3	110	99	71-119	10	QM-02
Ethane	0.173	0.002	mg/L	0.179	0.0004 U	97	75-123	14	
Ethene	0.151	0.002	mg/L	0.167	0.0004 U	91	72-131	12	
Methane	2.05	0.001	mg/L	0.0958	1.06	NR	74-116	18	QM-02

Matrix Spike Dup (9J21008-MSD1)

Source: C911892-02

Analyte	R ěš ut Fla	MRL	Ünits	Spike Level	Source Result	%ŘEC	%REC = Limits	RPD	RPÖ Limit	Notes
Carbon dioxide	145	2.50	mg/L	26.3	110	134	71-119	7	10	QM-02
Ethane	0.181	0.002	mg/L	0.179	0.0004 U	101	75-123	5	14	
Ethene	0.159	0.002	mg/L	0.167	0.0004 U	95	72-131	5	12	
Methane	2.12	0.001	mg/L	0.0958	1.06	NR	74-116	4	18	QM-02

Volatile Fatty Acids by HPLC - Quality Control

Batch 9J20013 - NO PREP ANALYTIX

Blank (9J20013-BLK1)

Prepared: 10/20/2009 10:16 Analyzed: 10/21/2009 12:02

			a diameter	内3000年1月15×	Splice	Source :		%REC		RPD"	
Analyte .	Result	Flag	HRL	Units	Level	Result %	REC	Limits	RPD	Limit •	Notes
Acetic Acid	0.071	U	0.50	mg/L							
Butyric Acid	0.16	U	0.50	mg/L							
Hexanoic Acid	0.32	U	0.50	mg/L							
HIBA (2-Hydroxyisobutyric Acid)	0.098	U	0.50	mg/L							
iso-Hexanoic Acid	0.41	U	0.50	mg/L							
iso-Pentanoic Acid	0.13	U	0.50	mg/L							
Lactic Acid	0.088	U	0.50	mg/L							
Pentanoic Acid	0.18	U	0.50	mg/L							
Propionic Acid	0.054	U	0.50	mg/L							
Pyruvic Acid	0.020	U	0.50	mg/L							
Surrogate: Trimethylacetic acid	63			mg/L	50.0		126	80-124			QA-03

LCS (9J20013-BS1)

Prepared: 10/20/2009 10:16 Analyzed: 10/21/2009 13:04

			An ex	Spike	Source -	%REC	RPD
Analyte	Result Flag	MRL →	Units	Level	Result %REC	Limits	RPD Limit Notes
Acetic Acid	18	0.50	mg/L	20.0	91	73-125	10
Butyric Acid	20	0.50	mg/L	20.0	101	80-120	10
Hexanoic Acid	21	0.50	mg/L	20.0	104	78-120	34
HIBA (2-Hydroxyisobutyric Acid)	18	0.50	mg/L	20.0	88	80-120	15
iso-Hexanoic Acid	21	0.50	mg/L	20.0	103	80-120	15
iso-Pentanoic Acid	17	0.50	mg/L	20.0	85	78-120	15
Lactic Acid	27	0.50	mg/L	20.0	134	56-154	19
Pentanoic Acid	20	0.50	mg/L	20.0	100	77-120	10
Propionic Acid	20	0.50	mg/L	20.0	99	80-120	10
Pyruvic Acid	18	0.50	mg/L	20.0	88	37-142	10



Volatile Fatty Acids by HPLC - Quality Control

Batch 9J20013 - NO PREP ANALYTIX

LCS (9J20013-BS1) Continued

Prepared: 10/20/2009 10:16 Analyzed: 10/21/2009 13:04

Analyto	1914年,在臺灣一時,國際國際經濟大	MRL Units	THE PERSON NAMED IN	iculroe %A Result %REC Lim	LEC .	RPD Limit Notes
Surmoate: Trimethylacetic acid	59	ma/l	50.0	118 80	124	

Matrix Spike (9J20013-MS1)

Source: C911892-01

Prepared: 10/20/2009 10:16 Analyzed: 10/21/2009 14:07

	Repult Fla	a MRL	Units	Spike Level	Source Result	%REC	%REC	RPD Limit Notes
Analyte Acetic Acid	Result Fla 43	0.50	mg/L	20.0	25	92	73-125	10
Butyric Acid	19	0.50	mg/L	20.0	0.16 U	97	80-120	10
Hexanoic Acid	20	0.50	mg/L	20.0	0.32 U	102	78-120	34
HIBA (2-Hydroxyisobutyric Acid)	22	0.50	mg/L	20.0	3.4	95	80-120	15
iso-Hexanoic Acid	19	0.50	mg/L	20.0	0.41 U	94	80-120	15
iso-Pentanoic Acid	17	0.50	mg/L	20.0	0.13 U	84	78-120	15
Lactic Acid	27	0.50	mg/L	20.0	0.088 U	135	56-154	19
Pentanoic Acid	21	0.50	mg/L	20.0	0.18 U	103	77-120	10
Propionic Acid	21	0.50	mg/L	20.0	0.054 U	105	80-120	10
Pyruvic Acid	19	0.50	mg/L	20.0	0.020 U	97	37-142	10
Surrogate: Trimethylacetic acid	60		mg/L	50.0		119	80-124	

Matrix Spike Dup (9J20013-MSD1)

Source: C911892-01

Prepared: 10/20/2009 10:16 Analyzed: 10/21/2009 15:09

	建筑工作的建筑	TYPE OF	1分数层冲气	Splice	Source	外性能	**REC	ر در در المارات مع المارون	NPO -	和政府上
Analyte	Result Fi		Units :	Level	Result	%REC-	· Limits	RPD	Link	Notes
Acetic Acid	41	0.50	mg/L	20.0	25	79	73-125	6	10	
Butyric Acid	20	0.50	mg/L	20.0	0.16 U	98	80-120	0.7	10	
Hexanoic Acid	22	0.50	mg/L	20.0	0.32 U	111	78-120	8	34	
HIBA (2-Hydroxyisobutyric Acid)	20	0.50	mg/L	20.0	3.4	84	80-120	10	15	
iso-Hexanoic Acid	19	0.50	mg/L	20.0	0.41 U	96	80-120	1	15	
iso-Pentanoic Acid	17	0.50	mg/L	20.0	0.13 U	83	78-120	1	15	
Lactic Acid	25	0.50	mg/L	20.0	0.088 U	124	56-154	9	19	
Pentanoic Acid	21	0.50	mg/L	20.0	0.18 U	105	77-120	2	10	
Propionic Acid	22	0.50	mg/L	20.0	0.054 U	111	80-120	6	10	
Pyruvic Acid	19	0.50	mg/L	20.0	0.020 U	97	37-142	0.1	10	
Surrogate: Trimethylacetic acid	60		mg/L	50.0		119	80-124			

Batch 9J23006 - NO PREP ANALYTIX

Blank (9J23006-BLK1)

Prepared: 10/23/2009 09:07 Analyzed: 10/23/2009 11:05

Analyto	Result	Flag	MRL	Units	Spike Source 99REC RPD Limit Notes
Acetic Acid	0.071	U	0.50	mg/L	10.00
Butyric Acid	0.16	' U	0.50	mg/L	
Hexanoic Acid	0.32	U	0.50	mg/L	
HIBA (2-Hydroxyisobutyric Acid)	0.098	U	0.50	mg/L	
iso-Hexanoic Acid	0.41	U	0.50	mg/L	
iso-Pentanoic Acid	0.13	U	0.50	mg/L	
Lactic Acid	0.088	U	0.50	mg/L	
Pentanoic Acid	0.18	U	0.50	mg/L	



Volatile Fatty Acids by HPLC - Quality Control

Batch 9J23006 - NO PREP ANALYTIX

Blank (9J23006-BLK1) Continued

Prepared: 10/23/2009 09:07 Analyzed: 10/23/2009 11:05

Analyte	Result	Flag	HRL	Units	Spike Level	Source Result %REC	%REC Limits	RPD Limit Notes
Propionic Acid	0.054	U	0.50	mg/L				
Pyruvic Acid	0.020	U	0.50	mg/L				
Surrogate: Trimethylacetic acid	66			mg/L	50.0	131	80-124	QA-03

LCS (9J23006-BS1)

Prepared: 10/23/2009 09:07 Analyzed: 10/23/2009 11:49

			r and deliver	Splike	Source	%REC	RPD .
Analyte	Result Flag	MRL	Units	Level	Result %REC	Limits	RPD Limit Notes
Acetic Acid	17	0.50	mg/L	20.0	86	73-125	
Butyric Acid	21	0.50	mg/L	20.0	105	80-120	
Hexanoic Acid	19	0.50	mg/L	20.0	93	78-120	
HIBA (2-Hydroxyisobutyric Acid)	18	0.50	mg/L	20.0	91	80-120	
iso-Hexanoic Acid	18	0.50	mg/L	20.0	90	80-120	
iso-Pentanoic Acid	20	0.50	mg/L	20.0	101	78-120	
Lactic Acid	25	0.50	mg/L	20.0	123	56-154	
Pentanoic Acid	19	0.50	mg/L	20.0	94	77-120	
Propionic Acid	19	0.50	mg/L	20.0	97	80-120	
Pyruvic Acid	16	0.50	mg/L	20.0	81	37-142	
Surrogate: Trimethylacetic acid	61		mg/L	50.0	122	80-124	

Matrix Spike (9J23006-MS1)

Prepared: 10/23/2009 09:07 Analyzed: 10/23/2009 12:51

Source: C912221-01

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Analyte	Result Flag	MRL	Units	Level	Result	%REC	Limits RPD Limit Notes
Acetic Acid	17	0.50	mg/L	20.0	0.64	84	73-125
Butyric Acid	21	0.50	mg/L	20.0	0.16 U	105	80-120
Hexanoic Acid	19	0.50	mg/L	20.0	0.32 U	95	78-120
HIBA (2-Hydroxyisobutyric Acid)	17	0.50	mg/L	20.0	0.098 U	85	80-120
iso-Hexanoic Acid	19	0.50	mg/L	20.0	0.41 U	93	80-120
iso-Pentanoic Acid	18	0.50	mg/L	20.0	0.13 U	92	78-120
Lactic Acid	26	0.50	mg/L	20.0	0.088 U	129	56-154
Pentanoic Acid	19	0.50	mg/L	20.0	0.18 U	96	77-120
Propionic Acid	20	0.50	mg/L	20.0	0.054 U	99	80-120
Pyruvic Acid	16	0.50	mg/L	20.0	0.020 U	82	37-142
Surrogate: Trimethylacetic acid	62		mg/L	50.0		124	80-124

Matrix Spike Dup (9J23006-MSD1)

Prepared: 10/23/2009 09:07 Analyzed: 10/23/2009 13:54

Source: C912221-01

Analyte	Result Fla	g MRL	Units	Splice Level	Source Result	%REC	%REC Limits	RPD	RPD Limit + Not	
Acetic Acid	17	0.50	mg/L	20.0	0.64	84	73-125	0.2	10	
Butyric Acid	20	0.50	mg/L	20.0	0.16 U	100	80-120	5	10	
Hexanoic Acid	19	0.50	mg/L	20.0	0.32 U	95	78-120	0.9	34	
HIBA (2-Hydroxyisobutyric Acid)	18	0.50	mg/L	20.0	0.098 U	91	80-120	7	15	
iso-Hexanoic Acid	21	0.50	mg/L	20.0	0.41 U	104	80-120	11	15	
iso-Pentanoic Acid	19	0.50	mg/L	20.0	0.13 U	94	78-120	2	15	
Lactic Acid	26	0.50	mg/L	20.0	0.088 U	131	56-154	1	19	



Volatile Fatty Acids by HPLC - Quality Control

Batch 9J23006 - NO PREP ANALYTIX

Matrix Spike Dup (9J23006-MSD1) Continued

Source: C912221-01

Prepared: 10/23/2009 09:07 Analyzed: 10/23/2009 13:54

Atiatyce	Résur P	ag MRL	Units	Splice Lavel	Source Result	%REC	%REC Limits	RPD +	RPD Limit	Hotes
Pentanoic Acid	19	0.50	mg/L	20.0	0.18 U	95	77-120	1	10	
Propionic Acid	19	0.50	mg/L	20.0	0.054 U	94	80-120	4	10	
Pyruvic Acid	16	0.50	mg/L	20.0	0.020 U	82	37-142	0.1	10	
Surrogate: Trimethylacetic acid	62		mg/L	50.0		124	80-124			

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 9J21019 - NO PREP

Blank (9J21019-BLK1)

Prepared: 10/21/2009 15:00 Analyzed: 10/21/2009 15:17

Analyte ***	Result	Flag	MR).	Units	Spile Source %REC RPD Limit Notes
Total Organic Carbon	0.32	u	1.0	ma/L	

LCS (9J21019-BS1)

Prepared: 10/21/2009 15:00 Analyzed: 10/21/2009 15:17

Analyte 1	Result Rag	MRL	Dats .	Spike Level	Source ************************************	NAREC RPD LIMIT Notes
Total Organic Carbon	38	1.0	mg/L	41.6	91	85-115

Matrix Spike (9J21019-MS1)

Source: A904691-01

Prepared: 10/21/2009 15:00 Analyzed: 10/21/2009 15:17

Analyte	Result Hay	MRL:	Units	Spike Level	Source Result	%REC	%REC Limits	RPD Limit Motes
Total Organic Carbon	38	1.0	mg/L	40.0	0.74	93	85-115	

Matrix Spike Dup (9J21019-MSD1)

Source: A904691-01

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Analyte) - MRL	Units		Source Result	%REC	%REC Umits	RPD -	RPD Limit	· 1000年1月1日 - 1000年1月 - 1000年1日 - 1
Total Organic Carbon	39	1.0	mg/L	40.0	0.74	95	85-115	2	21	

Batch 9J28004 - NO PREP

Blank (9J28004-BLK1)

Prepared: 10/28/2009 10:00 Analyzed: 10/28/2009 13:24

Analyte	Result	Flag -	MRL	- Units	Spike Source Level Result %	%REC 6REC Limits RPD	RPD Limit Notes
Total Organic Carbon	0.32	Ü	1.0	mg/L			

LCS (9J28004-BS1) Prepared: 10/28/2009 10:00 Analyzed: 10/28/2009 13:24

Analyte T	Result Flag	MRL	Units	Spilie Level	Source Result %REC	%REC RPD	RPD Notes
Total Organic Carbon	35	1.0	mg/L	41.6	85	85-115	

Matrix Spike (9128004-MS1) Prepared: 10/28/2009 10:00 Analyzed: 10/28/2009 13:24



Classical Chemistry Parameters - Quality Control

Batch 9J28004 - NO PREP

Matrix Spike (9J28004-MS1) Continued

Source: A905128-01

Prepared: 10/28/2009 10:00 Analyzed: 10/28/2009 13:24

Analyto	Realit Flag	MRL	Units	Solle Level	Source Repult	%REC	96REC Limits	RPD Limit Notes
Total Organic Carbon	39	1.0	mg/L	40.0	0.32 U	97	85-115	

Matrix Spike Dup (9J28004-MSD1)

Source: A905128-01

Prepared: 10/28/2009 10:00 Analyzed: 10/28/2009 13:24

Prepared: 10/28/2009 16:00 Analyzed: 10/28/2009 23:05

Analyte		MRL	Units	Spile	Source Result	%REC		ŘPD	RPO Limit	Notes -
Total Organic Carbon	39	1.0	mg/L	40.0	0.32 U	97	85-115	0.5	21	

Batch 9J28016 - NO PREP

Blank (9328016-BLK1)

Analyte Result Flac MRL Units Love Result PAREC Limits RPD Limit Notes	Spile Source SAREC RPD Analyte Result Plag MRL Units Level Result SAREC Limits RPD Limit	Notes
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mg/L Total Organic Carbon

Prepared: 10/28/2009 16:00 Analyzed: 10/28/2009 23:05 LCS (9J28016-BS1)

Analyte	Result Fla	g MRL'	Units :	PART T	Source Result / %REC	PARC =	RPD Limit Hotes
		- 4.0	H	44.6	nr.	OF 11F	

Matrix Spike (9J28016-MS1)

Prepared: 10/28/2009 16:00 Analyzed: 10/28/2009 23:05

Source: A905296-01

Analytic	Result Flag	MRL	Units	Spile Lavel	Source . Result	%REC	%REC Umits	RPD Limit Notes
Total Organic Carbon	36	1.0	mg/L	40.0	1.5	86	85-115	

Matrix Spike Dup (9J28016-MSD1)

Prepared: 10/28/2009 16:00 Analyzed: 10/28/2009 23:05

Source: A905296-01

Analyte	kesult Flag	MRL		Spilke Level	Source . Result	%REC	96REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	34	1.0	mg/L	40.0	1.5	82	85-115	5	21	QM-07



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
Е	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QA-03	Surrogate recovery outside acceptance limits
QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.



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Sample Comments

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Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 1 of 8 Lab Proj #: P0910377 Report Date: 11/03/09

Client Proj Name: White Street LF

Client Proj #: 1584-98-081

Laboratory Result	tory Results	Labora
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Total pages in data package: ____/

Lab Sample #	Client Sample ID
P0910377-01	II-1
P0910377-02	II-2
P0910377-03	1I-2B
P0910377-04	11-7
P0910377-05	II-7B ·
P0910377-06	11-9
P0910377-07	MW-14

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By:	Elblie Fallo	Date: 1-25-10	_
Proiect Manager:	Debbie Hallo		

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.

Please call customer service at (412)826-5245 or email customerservice@microseeps.com.

Case Narrative:

Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 2 of 8
Lab Proj #: P0910377
Report Date: 11/03/09
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P0910377-01		Sampled Date/Time 16 Oct. 09 10:50	Received 23 Oct. 09 9:3	6
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	0.680	0.600	nM	AM20GAX	10/29/09	sl

Client Name: S & ME Contact Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 3 of 8
Lab Proj #: P0910377
Report Date: 11/03/09
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-2	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P0910377-02		Sampled Date/Time 16 Oct. 09 15:00	Received 23 Oct. 09 9:36	
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	1.200	0.600	nM	AM20GAX	10/29/09	sl

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 4 of 8
Lab Proj #: P0910377
Report Date: 11/03/09
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-2B	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P0910377-03		Sampled Date/Time 20 Oct. 09 15:45	<u>Received</u> 23 Oct. 09 9:36	
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N. Hydrogen	1.400	0.600	nM	AM20GAX	10/30/09	si

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 5 of 8
Lab Proj #: P0910377
Report Date: 11/03/09
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-7	<u>Matrix</u> Vapor	<u>Lab Sample 1</u> P0910377-04	-	Sampled Date/Time 19 Oct. 09 12:45	Received 23 Oct. 09 9:36	
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N. Hydrogen	2 600	0.600	nM	AM20GAX	10/30/09	el

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 6 of 8 Lab Proj #: P0910377

Report Date: 11/03/09 Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-7B	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P0910377-05		Sampled Date/Time 19 Oct. 09 10:10	Received 23 Oct. 09 9:3	6
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	1.000	0.600	nM	AM20GAX	10/30/09	sl

Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 7 of 8 Lab Proj #: P0910377

Report Date: 11/03/09 Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-9	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P0910377-06	-	Sampled Date/Time 20 Oct. 09 12:05	Received 23 Oct. 09 9:3	36
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
<u>RiskAnalysis</u> N Hydrogen	1.100	0.600	nM	AM20GAX	10/30/09	sl

Client Name: S & ME

Contact Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 8 of 8 Lab Proj #: P0910377

Report Date: 11/03/09
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description MW-14	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P0910377-07	-	Sampled Date/Time 20 Oct. 09 18:00	<u>Received</u> 23 Oct. 09 9:3	36
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
<u>RiskAnalysis</u> N Hydrogen	1.000	0.600	nМ	AM20GAX	10/30/09	sl



Microseeps Lab. Proj. #

CHAIN - OF - CUSTODY RECORD

Microseeps COC cont. #

Phone: (412) 826	-5245 Mic	roseps, ind	220 V	Villiam E	?itt Wa	ıy - Pitt	sburgt	, PA 152	38	Fax	No. : (412) 8:	26-3433	
Company :	SAME TO	16.				ř	aramete	rs Reques	ted		Results to :		
Co. Address : 3	718 Old Battle	grand Road	Treens be	oro, N.C.								E, In	<u>c.</u>
Phone # : <u>(336</u>	١	Fax#: <u>(334</u>		•	Hydrogen	¬							
	onnel Ware				The state of the s								
Proj. Name/Number : كلكا	e Street LF-MA	JA Mondon	9 /1-584-	98-081	1 _ 1						Involce to :		· · · · · · · · · · · · · · · · · · ·
Sampler's signature :	a T.D.			Cooler Ten	Dissolved				:				
Sámple ID	Sample Description	Sample Type Water Vapor Solic	Dati	Time &	P						Re	marks :	
II-1	Gas vial	X	10/109	1050 1	ı X						·		
TT -2	11	X	19/1809	1500	X								
II - 2B	[1	X	10/2/09	1545	ΙX								
II -7	1/	X	10.19/09	1245	X								
II -7B	L/	X	10/19/09	1010	X								-
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Relinquished by:	Company 3. S&M	: E Inc	Date :		Recei	/ed by :		K	Con	npany :	n	Date:	Time :
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Relinquished by :	Company	<i>'</i> :	Date :	Time :	Recei	ved by :	; <u> </u>		Con	npany:		Date :	Time:
W	HITE COPY : Accompany 5	Samples		YELLOW CO	OPY : Lab	oratory Fil		P	INK CO	PY : Submi	tter	·	

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Friday, January 29, 2010

S&ME, Inc. (SM004)

Attn: Connel Ware

3718 Old Battleground Rd.

Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill MNA

ENCO Workorder: C915317

Dear Connel Ware,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, January 15, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

Thuck Sunt



SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-14	Lab ID: C	915317-01 Sampled: 01/1	l3/10 15:25 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	02/10/10	01/19/10 09:25	1/20/2010 00:32
EPA 310.2	01/27/10	01/19/10 13:30	1/19/2010 17:36
EPA 353.2	02/10/10	01/27/10 09:05	1/27/2010 09:05
EPA 8260B	01/27/10	01/22/10 08:51	1/23/2010 08:55
RSK 175	01/27/10	01/25/10 10:32	1/25/2010 11:33
SM18 4500-S D	01/20/10	01/18/10 11:37	1/18/2010 11:51
SM18 5310B	02/10/10	01/26/10 13:39	1/26/2010 14:30
SM4500-CI/E	02/10/10	01/19/10 13:33	1/19/2010 15:03
Volatile Fatty Acids	01/27/10	01/20/10 08:47	1/21/2010 15:51

Client ID: II-1	Lab ID: C915317-02	y w dayan yetin Sasaran wasa	Sampled	01/13/10 09:45 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date	/Time(s)	Analysis Date/Time(s)
EPA 300.0	02/10/10	01/19/10	09:25	1/20/2010 00:49
EPA 310.2	01/27/10	01/19/10	13:30	1/19/2010 17:39
EPA 353.2	02/10/10	01/27/10	09:05	1/27/2010 09:05
EPA 8260B	01/27/10	01/22/10	08:51	1/23/2010 09:23
RSK 175	01/27/10	01/25/10	10:32	1/25/2010 11:36
SM18 4500-S D	01/20/10	01/18/10	11:37	1/18/2010 11:51
SM18 5310B	02/10/10	01/26/10	13:39	1/26/2010 14:30
Volatile Fatty Acids	01/27/10	01/20/10	08:47	1/21/2010 16:53

Client ID: II-1	Lab ID	; C915317-02RE1 Sampled: 01/1:	3/10 09:45 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
RSK 175	01/27/10	01/25/10 10:32	1/25/2010 12:20
SM4500-CI/E	02/10/10	01/19/10 13:33	1/19/2010 16:55

Client ID: II-2	Lab ID:	C915317-03 Sampled: 01/1	2/10 09:50 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	02/09/10	01/19/10 09:25	1/20/2010 01:06
EPA 310.2	01/26/10	01/19/10 13:30	1/19/2010 17:40
EPA 353.2	02/09/10	01/27/10 09:05	1/27/2010 09:05
EPA 8260B	01/26/10	01/23/10 07:39	1/23/2010 12:41
RSK 175	01/26/10	01/25/10 10:32	1/25/2010 11:40
SM18 4500-S D	01/19/10	01/18/10 11:37	1/18/2010 11:51
SM18 5310B	02/09/10	01/26/10 13:39	1/26/2010 14:30
SM4500-CI/E	02/09/10	01/19/10 13:33	1/19/2010 15:07
Volatile Fatty Acids	01/26/10	01/20/10 08:47	1/21/2010 17:56



Client ID: II-2B	Lab ID:	C915317-04 Sampled: 01/1	4/10 09:05 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	02/11/10	01/19/10 09:07	1/19/2010 17:36
EPA 310.2	01/28/10	01/19/10 13:30	1/19/2010 17:41
EPA 353.2	02/11/10	01/27/10 09:05	1/27/2010 09:05
EPA 8260B	01/28/10	01/23/10 07:39	1/23/2010 14:39
RSK 175	01/28/10	01/25/10 10:32	1/25/2010 11:44
SM18 4500-S D	01/21/10	01/18/10 14:56	1/18/2010 15:07
SM18 5310B	02/11/10	01/26/10 13:39	1/26/2010 14:30
SM4500-CI/E	02/11/10	01/19/10 13:33	1/19/2010 15:08
Volatile Fatty Acids	01/28/10	01/20/10 08:47	1/21/2010 18:59

Client ID: II-28	Lab ID:	C915317-04RE1 Sampled: 01/14	1/10 09:05 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
RSK 175	01/28/10	01/25/10 10:32	1/25/2010 12:23

Client ID: 11-7	Lab ID; C915317-05	78.26A	Sampled:	01/13/10 13:30 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/T	ime(s)	Analysis Date/Time(s)
EPA 300.0	02/10/10	01/19/10	09:07	1/19/2010 17:53
EPA 310.2	01/27/10	01/19/10	13:30	1/19/2010 17:42
EPA 353.2	02/10/10	01/27/10	09:05	1/27/2010 09:05
EPA 8260B	01/27/10	01/23/10	07:39	1/23/2010 13:40
RSK 175	01/27/10	01/25/10	10:32	1/25/2010 11:48
SM18 4500-S D	01/20/10	01/18/10	11:37	1/18/2010 11:51
SM18 5310B	02/10/10	01/26/10	13:39	1/26/2010 14:30
SM4500-CI/E	02/10/10	01/19/10	13:33	1/19/2010 15:08
Volatile Fatty Acids	01/27/10	01/20/10	08:47	1/21/2010 20:01

Client ID; II-7	Lab III	: C915317-05RE1 Sampled: 01/13	/10 13:30 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
RSK 175	01/27/10	01/25/10 10:32	1/25/2010 12:27

Client ID: II-7B	lab ID:	C915317-06 Sampled: 01/13	/10 12:10 Received: 01	/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 310.2	01/27/10	01/19/10 13:30	1/19/2010 17:43	
EPA 353.2	02/10/10	01/27/10 09:05	1/27/2010 09:05	
EPA 8260B	01/27/10	01/23/10 07:39	1/23/2010 14:10	
RSK 175	01/27/10	01/25/10 10:32	1/25/2010 11:51	
SM18 4500-S D	01/20/10	01/18/10 11:37	1/18/2010 11:51	
SM18 5310B	02/10/10	01/26/10 13:39	1/26/2010 14:30	
SM4500-CI/E	02/10/10	01/19/10 13:33	1/19/2010 15:09	
Volatile Fatty Acids	01/27/10	01/20/10 08:47	1/21/2010 21:04	
Volatile Fatty Acids	01/27/10	01/20/10 08:47	1/21/2010 21:04	



Client ID; II-78	4 lab 1	ID: C915317-06RE1 Sampled: 0	1/13/10 12:10 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	02/10/10	01/19/10 09:07	1/20/2010 04:59

lent ID; II-9	lab ID:	915317-07 Sampled: 01/:	
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	02/11/10	01/19/10 09:07	1/19/2010 18:26
EPA 310.2	01/28/10	01/19/10 13:30	1/19/2010 17:44
EPA 353.2	02/11/10	01/27/10 09:05	1/27/2010 09:05
EPA 8260B	01/28/10	01/23/10 07:39	1/23/2010 17:06
RSK 175	01/28/10	01/25/10 10:32	1/25/2010 11:55
SM18 4500-S D	01/21/10	01/18/10 14:56	1/18/2010 15:07
SM18 5310B	02/11/10	01/26/10 13:39	1/26/2010 14:30
SM4500-CI/E	02/11/10	01/19/10 13:33	1/19/2010 15:10
Volatile Fatty Acids	01/28/10	01/20/10 08:47	1/21/2010 22:06

Client ID: Trip Blan	k Lab II	; C915317-08 Sampled: 01/12	/10 09:50 Received: 01/15/10 13:00
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	01/26/10	01/23/10 07:39	1/23/2010 13:11



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Jent ID: HW-14	注:发射起 :	10 1		Lab ID:	C915317-01	10年度第二		计划程序	
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	71.4		1	0.780	2.50	NE	mg/L	RSK 175	
Chloride	2.1	J	1	1.2	5.0	NE	mg/L	SM4500-CI/E	
Methane	0.001		1	0.0002	0.001	NE	mg/L	RSK 175	
Sulfate as SO4	1.2	J	1	0.18	5.0	250	mg/L	EPA 300.0	
Total Alkalinity	23		1	8.0	15	NE	mg/L	EPA 310.2	
lent ID: IU-1			2 (Lab ID:	C915317-02	对心理学习			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Benzene	0.99	J	1	0.20	1.0	1	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	2.2	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Lactic Acid	6.7		1	0.088	0.50	NE	mg/L	Volatile Fatty Acids	
Methane	0.0009	J	1	0.0002	0.001	NE	mg/L	RSK 175	
Nitrate as N	0.025	J	1	0.0056	0.10	10	mg/L	EPA 353.2	
Propionic Acid	18		1	0.054	0.50	NE	mg/L	Volatile Fatty Acids	
Sulfate as SO4	18	J	1	0.18	5.0	250	mg/L	EPA 300.0	
Total Alkalinity	390	D	2	16	30	NE	mg/L	EPA 310.2	
Total Organic Carbon	30		1	0.32	1.0	NE	mg/L	SM18 5310B	
Trichloroethene	0.41	}	1	0.38	1.0	1	ug/L	EPA 82608	
lent D: T-1	gas at mer	n digi		Lab ID:	C915317-02	RE1	Juana.		Carlo Car Carlo Carlo Ca
Analysis	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Analyte									
Analyte Carbon dioxide	525	D	10	7.80	25.0	NE	mg/L	RSK 175	
	525 520	D D	10 5	7.80 6.0	25.0 25	NE	mg/L mg/L	RSK 175 SM4500-CI/E	
Carbon dioxide Chloride Sent ID: SII-2				6.0		NE			Notes
Carbon dioxide Chloride lient ID: II-2 Analyte	520	D	5	6.0	25 C915317-03	NE	mg/L	SM4500-CI/E	Notes
Carbon dioxide Chloride lient ID: C II-2 Analyte Benzene	520 Results	D	5 DF	6.0 Lab 100:	25 C915317-03 MRL	NE NC SWSL	mg/L Units	SM4500-CI/E Method	Notes
Carbon dioxide Chloride Chloride Analyte Benzene Carbon dioxide	520 Results 1.8	D	5 DF	6.0 Lab ID: MDL 0.20	25 C915317-03 MRL 1.0	NE NC SWSL	mg/L Units ug/L	SM4500-CI/E Method EPA 8260B	Notes
Carbon dioxide Chloride Lent ID: 11-2 Analyte Benzene Carbon dioxide Chloride	520 Results 1.8 131	D	5 DF 1	6.0 Lab ID: 10 MDL 0.20 0.780	25 C915317-03 MRL 1.0 2.50	NE NC SWSL 1 NE	mg/L Units ug/L mg/L	SM4500-CI/E Method EPA 8260B RSK 175	Notes
Carbon dioxide Chloride Iient ID: II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene	520 Results 1.8 131 13	D	5 DF 1 1	6.0 Lab 10: 10: 10: 10: 10: 10: 10: 10: 10: 10:	25 C915317-03 MRL 1.0 2.50 5.0	NE NC SWSL 1 NE NE	mg/L Units ug/L mg/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E	Notes
Carbon dioxide Chloride Chloride II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane	Fesults 1.8 131 13 21	D	5 DF 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36	25 C915317-03 MRL 1.0 2.50 5.0 1.0	NE NC SWSL 1 NE NE 5	mg/L Units ug/L mg/L mg/L ug/L ug/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B	Notes
Carbon dioxide Chloride II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N	Fesults 1.8 1.31 1.3 2.1 1.35	D Flag	5 DF 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002	25 C915317-03 MRL 1.0 2.50 5.0 1.0 0.001	NE NC SWSL 1 NE NE 5 NE	mg/L Units ug/L mg/L mg/L ug/L ug/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175	Notes
Carbon dioxide Chloride Chloride Ident ID: C II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid	Results 1.8 131 13 21 1.35 0.031	D Flag	5 DF 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056	25 C915317-03 MRL 1.0 2.50 5.0 1.0 0.001 0.10	NE NC SWSL 1 NE NE 5 NE 10	ug/L ug/L mg/L mg/L ug/L ug/L mg/L mg/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2	Notes
Carbon dioxide Chloride Chloride Chloride Chloride Chloride Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid	Results 1.8 131 13 21 1.35 0.031 0.85	Tlag	5 DF 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50	NE NC SWSL 1 NE NE 5 NE 10 NE	mg/L Units ug/L mg/L mg/L ug/L mg/L mg/L mg/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids	Notes
Carbon dioxide Chloride Ilient ID: S. II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4	Results 1.8 131 13 21 1.35 0.031 0.85 0.029	Flag J	5 DF 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50	NE NC SWSL 1 NE NE 5 NE 10 NE NE	mg/L Units Ug/L mg/L mg/L ug/L mg/L mg/L mg/L mg/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids	Notes
Carbon dioxide Chloride Ilent ID: II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity	Results 1.8 131 13 21 1.35 0.031 0.85 0.029 25) Flag)))	5 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50 5.0	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250	mg/L Units ug/L mg/L mg/L ug/L mg/L mg/L mg/L mg/L mg/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0	Notes
Carbon dioxide Chloride Ilent ID: II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon	Results 1.8 1.31 1.3 2.1 1.35 0.031 0.85 0.029 2.5 3.60 1.5) Flag)))	5 DF 1 1 1 1 1 2	MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50 5.0 30	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE	mg/L Units Ug/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2	Notes
Carbon dioxide Chloride Ilent ID: III-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene	Results 1.8 1.31 1.3 2.1 1.35 0.031 0.85 0.029 2.5 3.60) Flag)))	5 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50 5.0 30 1.0	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE	mg/L Units ug/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B	Notes
Carbon dioxide Chloride Chloride Chloride Chloride Chloride Chloride Carbon dioxide Chloride Cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene Vinyl chloride	Results 1.8 131 13 21 1.35 0.031 0.85 0.029 25 360 1.5 3.9 5.7) Flag)))	5 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32 0.38 0.30	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50 5.0 30 1.0 1.0 1.0	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE 11 1	mg/L Units Ug/L mg/L ug/L ug/L ug/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B EPA 8260B EPA 8260B	
Carbon dioxide Chloride Illerat ID: 5-II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene Vinyl chloride Lent ID: II-28	Results 1.8 131 13 21 1.35 0.031 0.85 0.029 25 360 1.5 3.9 5.7	Flag	5 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32 0.38 0.30	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50 5.0 30 1.0 1.0	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE 1 1	mg/L Units ug/L mg/L ug/L ug/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B EPA 8260B	Notes
Carbon dioxide Chloride Chloride Chloride Chloride Chloride Carbon dioxide Chloride Cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene Vinyl chloride Carbon Chloride Chloride	Results 1.8 131 13 21 1.35 0.031 0.85 0.029 25 360 1.5 3.9 5.7) Flag)))	5 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32 0.38 0.30	25 C915317-03 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50 5.0 30 1.0 1.0 1.0 1.0	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE 1 1	mg/L Units Ug/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L ug/L ug/L ug/L ug/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B EPA 8260B EPA 8260B	
Carbon dioxide Chloride Ilient ID: S. II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene Vinyl chloride II-2B Analyte Benzene	Results 1.8 131 13 21 1.35 0.031 0.85 0.029 25 360 1.5 3.9 5.7	Flag	5 DF 1 1 1 1 1 1 1 1 DF	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32 0.38 0.30 Lab ID:	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 5.0 30 1.0 1.0 1.0 MRL	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE 1 1	mg/L Units Ug/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L ug/L ug/L Ug/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B EPA 8260B EPA 8260B	
Carbon dioxide Chloride Ilient ID: II-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene Vinyl chloride II-28 Analyte Benzene Chloride	Results 1.8 1.31 1.3 21 1.35 0.031 0.85 0.029 25 360 1.5 3.9 5.7	Flag	5 DF 1 1 1 1 1 1 1 DF DF	6.0 Lab 1D: MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32 0.38 0.30 Lab 1D: MDL 0.20	25 C915317-03 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 5.0 30 1.0 1.0 1.0 C915317-04 MRL 1.0	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE 1 1	mg/L Units Ug/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L ug/L Ug/L Ug/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B EPA 8260B EPA 8260B EPA 8260B	
Carbon dioxide Chloride Chloride Chloride Chloride Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene Vinyl chloride Cert 10: 11-28 Analyte Benzene Chloride Chloride Cis-1,2-Dichloroethene	Results 1.8 1.31 1.3 21 1.35 0.031 0.85 0.029 25 360 1.5 3.9 5.7 Results 1.2 11	Flag	5 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32 0.38 0.30 Lab ID:	25 C915317-03 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 5.0 30 1.0 1.0 1.0 1.0 C915317-04 MRL 1.0 5.0	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE 1 1 NC SWSL	mg/L Units ug/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L ug/L ug/L ug/L Units ug/L mg/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B EPA 8260B EPA 8260B EPA 8260B EPA 8260B SM4500-CI/E	
Carbon dioxide Chloride Ilent ID: TI-2 Analyte Benzene Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N Propionic Acid Pyruvic Acid Sulfate as SO4 Total Alkalinity Total Organic Carbon Trichloroethene Vinyl chloride	Results 1.8 131 13 21 1.35 0.031 0.85 0.029 25 360 1.5 3.9 5.7 Results 1.2 11 17	Flag	5 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	6.0 MDL 0.20 0.780 1.2 0.36 0.0002 0.0056 0.054 0.020 0.18 16 0.32 0.38 0.30 Lab ID:	25 MRL 1.0 2.50 5.0 1.0 0.001 0.10 0.50 0.50 5.0 1.0 1	NE NC SWSL 1 NE NE 5 NE 10 NE NE 250 NE NE 1 1 NC SWSL 1 NE 5	mg/L Units Ug/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L	Method EPA 8260B RSK 175 SM4500-CI/E EPA 8260B RSK 175 EPA 353.2 Volatile Fatty Acids Volatile Fatty Acids EPA 300.0 EPA 310.2 SM18 5310B EPA 8260B	



Analyte		105 3764	Х., _Р . (1	Lab ID;	C915317-04	. 7 34 5		117374	经过超光等3350 00
raidific	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Total Alkalinity	210	D	2	16	30	NE	mg/L	EPA 310.2	
Total Organic Carbon	2.6		1	0.32	1.0	NE	mg/L	SM18 5310B	
Trichloroethene	2.5		1	0.38	1.0	1	ug/L	EPA 8260B	
Vinyl chloride	4.0		1	0.30	1.0	1	ug/L	EPA 8260B	
Tiest (D: - 11-28			igna,	Lab ID:	C915317-04	RE1	Artists.		7.54.45.
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	260	D	10	7.80	25.0	NE	mg/L	RSK 175	
Jen D: 11-7				Lab ID;	.C91 5317-0 5	THE THE CO			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Benzene	0.79	J	1	0.20	1.0	1	ug/L	EPA 8260B	
Chloride	12		1	1.2	5.0	NE	mg/L	SM4500-CI/E	
cis-1,2-Dichloroethene	3.9	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Methane	0.055		1	0.0002	0.001	NE	mg/L	RSK 175	
Nitrate as N	0.27	j	1	0.0056	0.10	10	mg/L	EPA 353.2	
Pyruvic Acid	0.045	J	1	0.020	0.50	NE	mg/L	Volatile Fatty Acids	
Sulfate as SO4	11	j	1	0.18	5.0	250	mg/L	EPA 300.0	
Toluene	1.3		1	0.27	1.0	1	ug/L	EPA 8260B	
Total Alkalinity	83		1	8.0	15	NÉ	mg/L	EPA 310.2	
Total Organic Carbon	4.0		1	0.32	1.0	NE	mg/L	SM18 5310B	
Vinyl chloride	1.0		1	0.30	1.0	1	ug/L	EPA 8260B	
Analyte	Results	Flag	DE						
Carbon dioxide	393	D	DF	MDL 7.80	MRL 25.0	NC SWSL NE	Units mg/L	Method RSK 175	Notes
Carbon dioxide	393	D	10	7.80		NE	mg/L		Notes
Carbon dioxide	393	D	10	7.80	25.0 C915317-06	NE	mg/L	RSK 175	194
Carbon dioxide Sign 10: 11-78 Analyte	393 Results	D Flag	10 点示量 DF	7.80	25.0 C915317-06 MRL	NE NC SWSL	mg/L Units	RSK 175 Method	
Carbon dioxide Lient 10: 11-78 Analyte Chloride	393 Results 3.8	D	10 DF	7.80 Lab ID: MDL 1.2	25.0 C915317-06 MRL 5.0	NE NC SWSL NE	mg/L Units mg/L	RSK 175	
Carbon dioxide Hent ID: 11-78 Analyte Chloride Methane	393 Results 3.8 0.006	Plag	10 DF 1	7.80 Lab 1D: MDL 1.2 0.0002	25.0 C915317-06 MRL 5.0 0.001	NE NC SWSL NE NE	mg/L Units mg/L mg/L	RSK 175 Method SM4500-CVE RSK 175	
Carbon dioxide Ilent ID: II-78 Analyte Chloride Methane Nitrate as N	393 Results 3.8 0.006 0.25	D Flag	10 DF 1 1 1	7.80 MDL 1.2 0.0002 0.0056	25.0 C915317-06 MRL 5.0 0.001 0.10	NE NC SWSL NE NE 10	mg/L Units mg/L mg/L mg/L	RSK 175 Method SM4500-CI/E RSK 175 EPA 353.2	
Carbon dioxide Nent ID: II-78 Analyte Chloride Methane	393 Results 3.8 0.006	Plag	10 DF 1	7.80 Lab 1D: MDL 1.2 0.0002	25.0 C915317-06 MRL 5.0 0.001	NE NC SWSL NE NE	mg/L Units mg/L mg/L	RSK 175 Method SM4500-CVE RSK 175	194
Carbon dioxide Lient ID: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon	Results 3.8 0.006 0.25 95 2.5	Plag	10 DF 1 1 1 1	7.80 MDL 1.2 0.0002 0.0056 8.0	25.0 C915317-06 MRL 5.0 0.001 0.10 15	NE SWSL NE NE 10 NE NE	mg/L Units mg/L mg/L mg/L mg/L mg/L	RSK 175 Method SM4500-Ct/E RSK 175 EPA 353.2 EPA 310.2	
Carbon dioxide IL-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon	393 Results 3.8 0.006 0.25 95 2.5	Flag	10 DF 1 1 1 1 1	7.80 MDL 1.2 0.0002 0.0056 8.0 0.32	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0	NE SWSL NE NE 10 NE NE	mg/L Units mg/L mg/L mg/L mg/L mg/L	Method SM4500-CVE RSK 175 EPA 353.2 EPA 310.2 SM18 5310B	Notes
Carbon dioxide Jient 10: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon	Results 3.8 0.006 0.25 95 2.5	Plag	10 DF 1 1 1 1	7.80 MDL 1.2 0.0002 0.0056 8.0 0.32	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06	NE NC SWSL NE NE 10 NE NE	mg/L Units mg/L mg/L mg/L mg/L mg/L	Method SM4500-Ct/E RSK 175 EPA 353.2 EPA 310.2 SM18 5310B	Notes
Carbon dioxide Lient ID: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon Lient ID: 11-78 Analyte	Results 3.8 0.006 0.25 95 2.5	Flag J Flag	10 DF 1 1 1 1 1 DF	7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06	NE N	mg/L Units mg/L mg/L mg/L mg/L Mg/L Mg/L	Method SM4500-C/E RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method	Notes
Carbon dioxide Lient ID: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon Lient ID: 11-78 Analyte Sulfate as SO4	Results 3.8 0.006 0.25 95 2.5 Results	Flag J J J J	DF 1 1 1 1 1 1 The state of the	7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL 0.72	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20	NE N	mg/L Units mg/L mg/L mg/L mg/L Mg/L Mg/L	Method SM4500-Ct/E RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0	Notes
Carbon dioxide II-78 Analyte Chioride Methane Nitrate as N Total Alkalinity Total Organic Carbon III-78 Analyte Sulfate as SO4	Results 3.8 0.006 0.25 95 2.5 Results 100	Flag J J JD	10 DF 1 1 1 1 1 The state of the stat	7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL 0.72	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20	NE N	mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L	Method SM4500-CVE RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0	Notes Notes
Carbon dioxide III-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon III-78 Analyte Sulfate as SO4 Lient ID: III-9 Analyte Analyte	Results 3.8 0.006 0.25 95 2.5 Results 100	Flag J J JD	DF 1 1 1 1 1 1 1 1 T T T T T T T T T T T	7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL 0.72 Lab ID: MDL	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20 C915317-07 MRL	NE N	Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L Tolits mg/L	Method SM4500-CVE RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0	Notes Notes
Carbon dioxide Lient ID: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon Lient ID: 11-78 Analyte Sulfate as SO4 Lient ID: 11-9 Analyte Carbon dioxide Chloride	Results 3.8 0.006 0.25 95 2.5 Results 100 Results 201 6.5	Flag J J JD	DF 1 1 1 1 1 1 1 1 1 DF 4	7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL 0.72 Lab ID: MDL 0.780	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20 C915317-07 MRL 2.50	NE N	mg/L Units mg/L mg/L mg/L mg/L mg/L mg/L Units mg/L	Method SM4500-CVE RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0	Notes Notes
Carbon dioxide Lent 10: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon Lent 10: 11-78 Analyte Sulfate as SO4 Lent 10: 11-9 Analyte Carbon dioxide Chloride cis-1,2-Dichloroethene	Results 3.8 0.006 0.25 95 2.5 Results 100 Results 201 6.5 4.2	Flag JD Flag	DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7.80 7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL 0.72 Lab ID: 1.2 0.72	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20 C915317-07 MRL 2.50 5.0 1.0	NE N	mg/L Units mg/L mg/L mg/L mg/L mg/L Mg/L Units mg/L Units mg/L	Method SM4500-CVE RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0 Method RSK 175 SM4500-CVE	Notes Notes
Carbon dioxide Hent 10: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon Hent 10: 11-78 Analyte Sulfate as SO4 Hent 10: 11-9 Analyte Carbon dioxide Chloride cis-1,2-Dichloroethene Methane	Results 3.8 0.006 0.25 95 2.5 Results 100 Results 201 6.5 4.2 0.0009	Flag JD Flag JD	DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7.80 7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL 0.72 Lab ID: MDL 0.72 0.36 0.0002	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20 C915317-07 MRL 2.50 5.0 1.0 0.001	NE N	mg/L Units mg/L mg/L mg/L mg/L Mg/L Units mg/L Units mg/L Units mg/L Units mg/L	Method SM4500-CVE RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0 Method RSK 175 SM4500-CVE EPA 8260B	Notes Notes
Carbon dioxide Ilient 10: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon Ilient 10: 11-78 Analyte Sulfate as SO4 Ilient 10: 11-9 Analyte Carbon dioxide Chloride cis-1,2-Dichloroethene Methane Nitrate as N	Results 3.8 0.006 0.25 95 2.5 Results 100 Results 201 6.5 4.2 0.0009 0.25	Flag J Flag J Flag J J J J J J J J J J J J J	DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7.80 T.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID MDL 0.72 Lab ID MDL 0.780 1.2 0.36 0.0002 0.0056	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20 C915317-07 MRL 2.50 5.0 1.0 0.001 0.10	NE N	mg/L Units mg/L mg/L mg/L mg/L Mg/L Units mg/L Units mg/L Units mg/L Units mg/L Units mg/L	Method SM4500-Ct/E RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0 Method RSK 175 SM4500-Ct/E EPA 8260B RSK 175 EPA 353.2	Notes Notes
Carbon dioxide Lient ID: 11-78 Analyte Chloride Methane Nitrate as N Total Alkalinity Total Organic Carbon Lient ID: 11-78 Analyte Sulfate as SO4 Lient ID: 11-9 Analyte Carbon dioxide Chloride	Results 3.8 0.006 0.25 95 2.5 Results 100 Results 201 6.5 4.2 0.0009	Flag JD Flag JD	DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7.80 7.80 MDL 1.2 0.0002 0.0056 8.0 0.32 Lab ID: MDL 0.72 Lab ID: MDL 0.72 0.36 0.0002	25.0 C915317-06 MRL 5.0 0.001 0.10 15 1.0 C915317-06 MRL 20 C915317-07 MRL 2.50 5.0 1.0 0.001	NE N	mg/L Units mg/L mg/L mg/L mg/L Mg/L Units mg/L Units mg/L Units mg/L Units mg/L	Method SM4500-Ct/E RSK 175 EPA 353.2 EPA 310.2 SM18 5310B Method EPA 300.0 Method RSK 175 SM4500-Ct/E EPA 8260B RSK 175	Notes Notes



ANALYTICAL RESULTS

Description: MW-14

Lab Sample ID: C915317-01

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 15:25

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 08:55	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 08:55	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 08:55	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 08:55	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 08:55	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 08:55	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 08:55	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 08:55	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 08:55	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 08:55	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 08:55	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 08:55	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	45	1	50.0	90 %	51	122	0A22005	EPA 8260B	01/23/10 08:55	JKG	
Dibromofluoromethane	49	1	50.0	98 %	68	117	0A22005	EPA 8260B	01/23/10 08:55	JKG	
Toluene-d8	47	1	50.0	94 %	69	110	0A22005	EPA 8260B	01/23/10 08:55	JKG	



Lab Sample ID: C915317-01

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 15:25
Sampled By: Gary Simcox

Work Order: C915317

Project: White Street Landfill MNA

Classical Chemistry Parameters

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DE	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	2.1	J	mg/L	1	1.2	5.0	NE	SM4500-CI/E	01/19/10 15:03	AJB	
Nitrate as N [14797-55-8] ^	0.0056	U	mg/L	1	0.0056	0.10	10	EPA 353.2	01/27/10 09:05	PEV	
Sulfate as SO4 [14808-79-8] ^	1.2	J	mg/L	1	0.18	5.0	250	EPA 300.0	01/20/10 00:32	AJB	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	01/18/10 11:51	AJB	
Total Alkalinity [471-34-1] ^	23		mg/L	1	8.0	15	NE	EPA 310.2	01/19/10 17:36	AJB	



Lab Sample ID: C915317-01

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 15:25

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DE	MDL	MRL	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	0.32	U	mg/L	1	0.32	1.0	NE	SM18 5310B	01/26/10 14:30	RSA	



Lab Sample ID: C915317-01

Received: 01/15/10 13:00

Work Order: C915317

Matrix: Ground Water
Project: White Street Landfill MNA

Sampled: 01/13/10 15:25

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number] Carbon dioxide [124-38-9]	Results 71.4	Flag	<u>Units</u> mg/L	<u>DF</u>	MDL 0.780	MRL 2.50	NC SWSL NE	Method RSK 175	Analyzed 01/25/10 11:33	By LAC	Notes
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:33	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:33	LAC	
Methane [74-82-8]	0.001		mg/L	1	0.0002	0.001	NE	RSK 175	01/25/10 11:33	LAC	



Lab Sample ID: C915317-01

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 15:25

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number] Acetic Acid [64-19-7]	<u>Results</u> 0.071	<u>Flag</u> U	<u>Units</u> mg/L	DE 1	MDL 0.071	MRL 0.50	NC SWSL NE	Method Volatile Fatty Acids	Analyzed 01/21/10 15:51	By MEF	<u>Notes</u>
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	01/21/10 15:51	MEF	
Hexanoic Acid [142-62-1]	0.32	Ų	mg/L	1	0.32	0.50		Volatile Fatty Acids	01/21/10 15:51	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	01/21/10 15:51	MEF	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	01/21/10 15:51	MEF	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	01/21/10 15:51	MEF	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	01/21/10 15:51	MEF	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	01/21/10 15:51	MEF	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	01/21/10 15:51	MEF	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	01/21/10 15:51	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	76	1	70.0	109 %	80-	124	0A20001	Volatile Fatty Acids	01/21/10 15:51	MEF	



Lab Sample ID: C915317-02

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 09:45

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 09:23	JKG	
Benzene [71-43-2] ^	0.99	נ	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 09:23	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 09:23	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	2.2	j	ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 09:23	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 09:23	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 09:23	ЭKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 09:23	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 09:23	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 09:23	JKG	
Trichloroethene [79-01-6] ^	0.41	3	ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 09:23	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 09:23	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 09:23	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	45	1	50.0	89 %	51-	122	0A22005	EPA 8260B	01/23/10 09:23	JKG	
Dibromofluoromethane	48	1	50.0	<i>96</i> %	68-	117	0A22005	EPA 8260B	01/23/10 09:23	JKG	
Toluene-d8	47	1	50.0	94 %	<i>69</i>	110	0A22005	EPA 8260B	01/23/10 09:23	JKG	

Classical Chemistry Parameters

^{^ -} ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	520	D	mg/L	5	6.0	25	NE	SM4500-CI/E	01/19/10 16:55	AJB	
Nitrate as N [14797-55-8] ^	0.025	J	mg/L	1	0.0056	0.10	10	EPA 353.2	01/27/10 09:05	PEV	
Sulfate as SO4 [14808-79-8] ^	18	J	mg/L	1	0.18	5.0	250	EPA 300.0	01/20/10 00:49	AJB	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	01/18/10 11:51	AJB	
Total Alkalinity [471-34-1] ^	390	D	mg/L	2	16	30	NE	EPA 310.2	01/19/10 17:39	AJB	



Lab Sample ID: C915317-02

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 09:45

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters ^ - ENCO Orlando certified analyte [NC 424]

NC SWSL MDL MRL <u>Method</u> **Notes** <u>DF</u> <u>Analyzed</u> Вy Analyte [CAS Number] Results <u>Flag</u> <u>Units</u> Total Organic Carbon [ECL-0165] ^ 30 mg/L 1 0.32 1.0 SM18 5310B 01/26/10 14:30 RSA

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	By	<u>Notes</u>
Carbon dioxide [124-38-9]	525	D	mg/L	10	7.80	25.0	NE	RSK 175	01/25/10 12:20	LAC	
Ethane [74-84-0]	0.0004	υ	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:36	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:36	LAC	
Methane [74-82-8]	0.0009	J	mg/L	1	0.0002	0.001	NE	RSK 175	01/25/10 11:36	LAC	



Lab Sample ID: C915317-02

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 09:45
Sampled By: Gary Simcox

Work Order: C915317

Project: White Street Landfill MNA

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	0.071	U	mg/L	1	0.071	0.50	NE	Volatile Fatty Acids	01/21/10 16:53	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	01/21/10 16:53	MEF	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	01/21/10 16:53	MEF	
HIBA (2-Hydroxyisobutyric Acid)	4.0		mg/L	1	0.098	0.50		Volatile Fatty Acids	01/21/10 16:53	MEF	
[594-61-6] iso-Hexanoic Acid [646-07-1]	1.1		mg/L	1	0.41	0.50		Volatile Fatty Acids	01/21/10 16:53	MEF	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	01/21/10 16:53	MEF	
Lactic Acid [50-21-5]	6.7		mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	01/21/10 16:53	MEF	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	01/21/10 16:53	MEF	
Propionic Acid [79-09-4]	18		mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	01/21/10 16:53	MEF	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	01/21/10 16:53	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	81	1	70.0	116 %	80-	124	0A20001	Volatile Fatty Acids	01/21/10 16:53	MEF	



Lab Sample ID: C915317-03

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/12/10 09:50

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

sults).27	Flag									
).27		<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 12:41	JKG	
1.8		ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 12:41	JKG	
0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 12:41	JKG	
21		ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 12:41	JKG	
0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 12:41	JKG	
0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 12:41	JKG	
).27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 12:41	JKG	
0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 12:41	JKG	
0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 12:41	JKG	
3.9		ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 12:41	JKG	
5.7		ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 12:41	ЭKG	
).40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 12:41	JKG	
sults	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
47	1	50.0	93 %	51-	122	0A23001	EPA 8260B	01/23/10 12:41	JKG	
45	1	50.0	90 %	68-	117	0A23001	EPA 8260B	01/23/10 12:41	JKG	
46	1	50.0	91 %	69-	110	0A23001	EPA 8260B	01/23/10 12:41	JKG	
	1.8 0.30 21 0.20 0.48 0.27 0.27 0.34 3.9 5.7 0.40 esults 47 45 46	0.30 U 21 0.20 U 0.48 U 0.27 U 0.34 U 3.9 5.7 0.40 U 22 47 1 45 1	0.30 U ug/L 21 ug/L 0.20 U ug/L 0.48 U ug/L 0.27 U ug/L 0.27 U ug/L 0.34 U ug/L 0.34 U ug/L 0.40 U ug/L 0.40 U ug/L 2.57 ug/L 0.40 U ug/L 2.50 Ug/L 2.50 Ug/L 2.50 Ug/L 2.50 Ug/L 2.50 Ug/L 2.50 Ug/L	0.300 U ug/L 1 21 ug/L 1 0.20 U ug/L 1 0.48 U ug/L 1 0.27 U ug/L 1 0.27 U ug/L 1 0.34 U ug/L 1 3.9 ug/L 1 0.40 U ug/L 1 0.40 U ug/L 1 0.40 U ug/L 1 0.50 93 % 45 1 50.0 90 %	0.30 U ug/L 1 0.30 21 ug/L 1 0.36 0.20 U ug/L 1 0.20 0.48 U ug/L 1 0.48 0.27 U ug/L 1 0.27 0.27 U ug/L 1 0.27 0.34 U ug/L 1 0.34 3.9 ug/L 1 0.38 5.7 ug/L 1 0.30 0.40 U ug/L 1 0.40 0.40 U ug/L 1 0.40 0.5sults DF Spike Lvi % Rec % Rec 47 1 50.0 93 % 51- 45 1 50.0 90 % 68-	0.30	Display Disp	0.30 U ug/L 1 0.30 1.0 10 EPA 8260B 21	0.30 U ug/L 1 0.30 1.0 10 EPA 82608 01/23/10 12:41 21	0.30 U ug/L 1 0.30 1.0 10 EPA 8260B 01/23/10 12:41 JKG 21 ug/L 1 0.36 1.0 5 EPA 8260B 01/23/10 12:41 JKG 0.20 U ug/L 1 0.20 1.0 1 EPA 8260B 01/23/10 12:41 JKG 0.48 U ug/L 1 0.48 2.0 NE EPA 8260B 01/23/10 12:41 JKG 0.27 U ug/L 1 0.27 1.0 NE EPA 8260B 01/23/10 12:41 JKG 0.27 U ug/L 1 0.27 1.0 NE EPA 8260B 01/23/10 12:41 JKG 0.34 U ug/L 1 0.34 1.0 5 EPA 8260B 01/23/10 12:41 JKG 0.34 U ug/L 1 0.34 1.0 5 EPA 8260B 01/23/10 12:41 JKG 0.39 ug/L 1 0.38 1.0 1 EPA 8260B 01/23/10 12:41 JKG 0.40 U ug/L 1 0.30 1.0 1 EPA 8260B 01/23/10 12:41 JKG 0.40 U ug/L 1 0.30 1.0 1 EPA 8260B 01/23/10 12:41 JKG 0.40 U ug/L 1 0.40 1.0 5 EPA 8260B 01/23/10 12:41 JKG 0.40 U ug/L 1 0.30 1.0 1 EPA 8260B 01/23/10 12:41 JKG 0.40 U ug/L 1 0.40 1.0 5 EPA 8260B 01/23/10 12:41 JKG 0.40 U ug/L 1 0.40 1.0 5 EPA 8260B 01/23/10 12:41 JKG 0.40 U ug/L 1 0.40 1.0 5 EPA 8260B 01/23/10 12:41 JKG



Description: II-2 Lab Sample ID: C915317-03

Matrix: Ground Water Sampled: 01/12/10 09:50

Project: White Street Landfill MNA Sampled By: Gary Simcox

Received: 01/15/10 13:00

Work Order: C915317

Classical Chemistry Parameters

Analyte [CAS Number] Chloride [16887-00-6] ^	Results 13	<u>Flag</u>	<u>Units</u> mg/L	<u>DF</u>	MDL 1.2	<u>MRL</u> 5.0	NC SWSL NE	Method SM4500-CI/E	Analyzed 01/19/10 15:07	By AJB	<u>Notes</u>
Nitrate as N [14797-55-8] ^	0.031	J	mg/L	1	0.0056	0.10	10	EPA 353.2	01/27/10 09:05	PEV	
Sulfate as SO4 [14808-79-8] ^	25	J	mg/L	1	0.18	5.0	250	EPA 300.0	01/20/10 01:06	AJB	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	01/18/10 11:51	AJB	
Total Alkalinity [471-34-1] ^	360	D	mg/L	2	16	30	NE	EPA 310.2	01/19/10 17:40	AJB	



Lab Sample ID: C915317-03

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/12/10 09:50

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	1.5		ma/L	1	0.32	1.0	NE	SM18 5310B	01/26/10 14:30	RSA	



Lab Sample ID: C915317-03

Sampled: 01/12/10 09:50

Received: 01/15/10 13:00

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C915317

Dissolved Gases by GC

Analyte [CAS Number] Carbon dioxide [124-38-9]	Results 131	<u>Flag</u>	Units mg/L	<u>DF</u>	MDL 0.780	MRL 2.50	NC SWSL NE	Method RSK 175	Analyzed 01/25/10 11:40	By LAC	<u>Notes</u>
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:40	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:40	LAC	
Methane [74-82-8]	1.35		mg/L	1	0.0002	0.001	NE	RSK 175	01/25/10 11:40	LAC	



Lab Sample ID: C915317-03

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/12/10 09:50

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number] Acetic Acid [64-19-7]	<u>Results</u> 0.071	Flag U	<u>Units</u> mg/L	<u>DF</u>	MDL 0.071	MRL 0.50	NC SWSL NE	<u>Method</u> Volatile Fatty Acids	Analyzed 01/21/10 17:56	By MEF	<u>Notes</u>
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	01/21/10 17:56	MEF	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	01/21/10 17:56	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	01/21/10 17:56	MEF	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	01/21/10 17:56	MEF	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	01/21/10 17:56	MEF	
Lactic Acid [50-21-5]	0.088	ŭ	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	01/21/10 17:56	MEF	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	01/21/10 17:56	MEF	
Propionic Acid [79-09-4]	0.85		mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	01/21/10 17:56	MEF	
Pyruvic Acid [127-17-3]	0.029	J	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	01/21/10 17:56	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	76	1	70.0	108 %	80-	124	0A20001	Volatile Fatty Acids	01/21/10 17:56	MEF	



Lab Sample ID: C915317-04

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/14/10 09:05 Sampled By: Gary Simcox

Work Order: C915317

Project: White Street Landfill MNA

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DE	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 14:39	JKG	
Benzene [71-43-2] ^	1.2		ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 14:39	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 14:39	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	17		ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 14:39	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 14:39	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 14:39	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 14:39	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 14:39	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 14:39	JKG	
Trichloroethene [79-01-6] ^	2.5		ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 14:39	JKG	
Vinyl chloride [75-01-4] ^	4.0		ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 14:39	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 14:39	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	51	1	50.0	102 %	51-	122	0A23001	EPA 8260B	01/23/10 14:39	JKG	
Dibromofluoromethane	50	1	50.0	101 %	68-	117	0A23001	EPA 8260B	01/23/10 14:39	JKG	
Toluene-d8	50	1	50.0	100 %	69-	110	0A23001	EPA 8260B	01/23/10 14:39	JKG	



Lab Sample ID: C915317-04

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/14/10 09:05

Sampled By: Gary Simcox

Work Order: C915317

Project: White Street Landfill MNA

Classical Chemistry Parameters

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	11		mg/L	1	1.2	5.0	NE	SM4500-CI/E	01/19/10 15:08	AJB	
Nitrate as N [14797-55-8] ^	0.032	J	mg/L	1	0.0056	0.10	10	EPA 353.2	01/27/10 09:05	PEV	
Sulfate as SO4 [14808-79-8] ^	22	j	mg/L	1	0.18	5.0	250	EPA 300.0	01/19/10 17:36	AJB	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	01/18/10 15:07	AJB	
Total Alkalinity [471-34-1] ^	210	D	mg/L	2	16	30	NE	EPA 310.2	01/19/10 17:41	AJB	



Lab Sample ID: C915317-04

Received: 01/15/10 13:00

Work Order: C915317

Matrix: Ground Water

Sampled: 01/14/10 09:05

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

NC SWSL MRL Method Ву **Notes** Analyte [CAS Number] Results Flag <u>Units</u> <u>DF</u> MDL <u>Analyzed</u> Total Organic Carbon [ECL-0165] ^ 2.6 0.32 1.0 SM18 5310B 01/26/10 14:30 mg/L

Dissolved Gases by GC

Analyte [CAS Number] Carbon dioxide [124-38-9]	Results 260	<u>Flaq</u> D	Units mg/L	DF 10	MDL 7.80	MRL 25.0	NC SWSL NE	Method RSK 175	Analyzed 01/25/10 12:23	By LAC	<u>Notes</u>
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:44	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:44	LAC	
Methane [74-82-8]	0.384		mg/L	1	0.0002	0.001	NE	RSK 175	01/25/10 11:44	LAC	



Lab Sample ID: C915317-04

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/14/10 09:05

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	0.071	U	mg/L	1	0.071	0.50	NE	Volatile Fatty Acids	01/21/10 18:59	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	01/21/10 18:59	MEF	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	01/21/10 18:59	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	01/21/10 18:59	MEF	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	01/21/10 18:59	MEF	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	01/21/10 18:59	MEF	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	01/21/10 18:59	MEF	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	01/21/10 18:59	MEF	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	01/21/10 18:59	MEF	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	01/21/10 18:59	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	75	1	70.0	107 %	80-	124	0A20001	Volatile Fatty Acids	01/21/10 18:59	MEF	



 $\textbf{Description:} \ \ ^{II-7}$

Lab Sample ID: C915317-05

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 13:30

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 13:40	JKG	
Benzene [71-43-2] ^	0.79	j	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 13:40	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 13:40	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	3.9	j	ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 13:40	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 13:40	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 13:40	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 13:40	JKG	
Toluene [108-88-3] ^	1.3		ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 13:40	ЭKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 13:40	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 13:40	JKG	
Vinyl chloride [75-01-4] ^	1.0		ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 13:40	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 13:40	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	48	1	50.0	96 %	51-	122	0A23001	EPA 8260B	01/23/10 13:40	JKG	
Dibromofluoromethane	48	1	50.0	96 %	68-	117	0A23001	EPA 8260B	01/23/10 13:40	JKG	
Toluene-d8	49	1	50.0	97 %	69-	110	0A23001	EPA 8260B	01/23/10 13:40	JKG	



Lab Sample ID: C915317-05

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 13:30
Sampled By: Gary Simcox

Work Order: C915317

Project: White Street Landfill MNA

Classical Chemistry Parameters

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DE	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	12		mg/L	1	1.2	5.0	NE	SM4500-CI/E	01/19/10 15:08	AJB	
Nitrate as N [14797-55-8] ^	0.27	J	mg/L	1	0.0056	0.10	10	EPA 353.2	01/27/10 09:05	PEV	
Sulfate as SO4 [14808-79-8] ^	11	J	mg/L	1	0.18	5.0	250	EPA 300.0	01/19/10 17:53	AJB	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	01/18/10 11:51	AJB	
Total Alkalinity [471-34-1] ^	83		mg/L	1	8.0	15	NE	EPA 310.2	01/19/10 17:42	AJB	



 $\textbf{Description:} \ \ ^{II-7}$

Lab Sample ID: C915317-05

Received: 01/15/10 13:00

Work Order: C915317

Matrix: Ground Water

Sampled: 01/13/10 13:30

Sampled By: Gary Simcox

Project: White Street Landfill MNA

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	Notes
Total Organic Carbon [ECL-0165] ^	4.0		ma/L	1	0.32	1.0	NE	SM18 5310B	01/26/10 14:30	RSA	

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Carbon dioxide [124-38-9]	393	D	mg/L	10	7.80	25.0	NE	RSK 175	01/25/10 12:27	LAC	
Ethane [74-84-0]	0.0004	υ	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:48	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:48	LAC	
Methane [74-82-8]	0.055		mg/L	1	0.0002	0.001	NE	RSK 175	01/25/10 11:48	LAC	



Lab Sample ID: C915317-05

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 13:30

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u> 0.071	<u>Flag</u> U	<u>Units</u> mg/L	<u>DF</u>	MDL 0.071	MRL 0.50	NC SWSL NE	<u>Method</u> Volatile Fatty Acids	Analyzed 01/21/10 20:01	By Mef	<u>Notes</u>
Acetic Acid [64-19-7] Butyric Acid [107-92-6]	0.071	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	01/21/10 20:01	MEF	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	01/21/10 20:01	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	01/21/10 20:01	MEF	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	01/21/10 20:01	MEF	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	01/21/10 20:01	MEF	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	01/21/10 20:01	MEF	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	01/21/10 20:01	MEF	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	01/21/10 20:01	MEF	
Pyruvic Acid [127-17-3]	0.045	J	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	01/21/10 20:01	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	76	1	70.0	108 %	80-	124	0A20001	Volatile Fatty Acids	01/21/10 20:01	MEF	



 $\textbf{Description:} \ II\text{-}7B$

Lab Sample ID: C915317-06

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 12:10
Sampled By: Gary Simcox

Work Order: C915317

Project: White Street Landfill MNA

Volatile Organic Compounds by GCMS

Analyte [CAS Number] 1,1,1-Trichloroethane [71-55-6] ^	Results 0.27	<u>Flag</u> ∪	<u>Units</u> ug/L	<u>DF</u>	<u>MDL</u> 0.27	MRL 1.0	NC SWSL	Method EPA 8260B	Analyzed 01/23/10 14:10	By JKG	Notes
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 14:10	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 14:10	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 14:10	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 14:10	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 14:10	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 14:10	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 14:10	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 14:10	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 14:10	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 14:10	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 14:10	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	48	1	50.0	96 %	51-	122	0A23001	EPA 8260B	01/23/10 14:10	JKG	
Dibromofluoromethane	49	1	50.0	<i>99 %</i>	<i>68-</i> .	117	0A23001	EPA 8260B	01/23/10 14:10	JKG	
Toluene-d8	49	1	50.0	97 %	69-	110	0A23001	EPA 8260B	01/23/10 14:10	JKG	



Description: II-7B Lab Sample ID: C915317-06 Received: 01/15/10 13:00

Matrix:Ground WaterSampled: 01/13/10 12:10Project:White Street Landfill MNASampled By: Gary Simcox

Work Order: C915317

Classical Chemistry Parameters

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	3.8	J	mg/L	1	1.2	5.0	NE	SM4500-CI/E	01/19/10 15:09	AJB	
Nitrate as N [14797-55-8] ^	0.25	J	mg/L	1	0.0056	0.10	10	EPA 353.2	01/27/10 09:05	PEV	
Sulfate as SO4 [14808-79-8] ^	100	JD	mg/L	4	0.72	20	250	EPA 300.0	01/20/10 04:59	AJB	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	01/18/10 11:51	AJB	
Total Alkalinity [471-34-1] ^	95		mg/L	1	8.0	15	NE	EPA 310.2	01/19/10 17:43	AJB	



Lab Sample ID: C915317-06

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 12:10

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	2.5		mg/L	1	0.32	1.0	NE	SM18 5310B	01/26/10 14:30	RSA	



 $\textbf{Description:} \ \ ^{II-7B}$

Lab Sample ID: C915317-06

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 12:10

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number] Carbon dioxide [124-38-9]	Results 0.780	Flag U	Units mg/L	<u>PF</u>	MDL 0.780	MRL 2.50	NC SWSL NE	Method RSK 175	Analyzed 01/25/10 11:51	By LAC	<u>Notes</u>
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:51	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:51	LAC	
Methane [74-82-8]	0.006		mg/L	1	0.0002	0.001	NE	RSK 175	01/25/10 11:51	LAC	



Lab Sample ID: C915317-06

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/13/10 12:10

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	0.071	U	mg/L	1	0.071	0.50	NE	Volatile Fatty Acids	01/21/10 21:04	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	01/21/10 21:04	MEF	
Hexanoic Acid [142-62-1]	0.32	U	mg/L	1	0.32	0.50		Volatile Fatty Acids	01/21/10 21:04	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	01/21/10 21:04	MEF	
iso-Hexanoic Acid [646-07-1]	0.41	U	mg/L	1	0.41	0.50		Volatile Fatty Acids	01/21/10 21:04	MEF	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	01/21/10 21:04	MEF	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	01/21/10 21:04	MEF	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	01/21/10 21:04	MEF	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	01/21/10 21:04	MEF	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	01/21/10 21:04	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	76	1	70.0	109 %	80-	124	0A20001	Volatile Fatty Acids	01/21/10 21:04	MEF	



Lab Sample ID: C915317-07

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/14/10 10:40

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Enco day continue analyte [Ne 351]											
Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	<u>B</u> y	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 17:06	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 17:06	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 17:06	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	4.2	J	ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 17:06	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 17:06	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 17:06	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 17:06	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 17:06	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 17:06	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 17:06	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 17:06	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	υ	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 17:06	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-	122	0A23001	EPA 8260B	01/23/10 17:06	JKG	
Dibromofluoromethane	46	1	50.0	92 %	68-	117	0A23001	EPA 8260B	01/23/10 17:06	JKG	
Toluene-d8	47	1	50.0	95 %	69-	110	0A23001	EPA 8260B	01/23/10 17:06	JKG	



Lab Sample ID: C915317-07 Received: 01/15/10 13:00 Description: II-9 Matrix: Ground Water Sampled: 01/14/10 10:40

Project: White Street Landfill MNA Sampled By: Gary Simcox Work Order: C915317

Classical Chemistry Parameters

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	6.5		mg/L	1	1.2	5.0	NE	SM4500-CI/E	01/19/10 15:10	AJB	
Nitrate as N [14797-55-8] ^	0.25	J	mg/L	1	0.0056	0.10	10	EPA 353.2	01/27/10 09:05	PEV	
Sulfate as 504 [14808-79-8] ^	51	j	mg/L	1	0.18	5.0	250	EPA 300.0	01/19/10 18:26	AJB	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1	SM18 4500-S D	01/18/10 15:07	AJB	
Total Alkalinity [471-34-1] ^	92		mg/L	1	8.0	15	NE	EPA 310.2	01/19/10 17:44	AJB	



Lab Sample ID: C915317-07

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/14/10 10:40

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	4.1		ma/L	1	0.32	1.0	NE	SM18 5310B	01/26/10 14:30	RSA	



Lab Sample ID: C915317-07

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/14/10 10:40

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number] Carbon dioxide [124-38-9]	Results 201	Flag	Units mg/L	DE	MDL 0.780	MRL 2.50	NC SWSL NE	<u>Method</u> RSK 175	Analyzed 01/25/10 11:55	By LAC	<u>Notes</u>
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:55	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	01/25/10 11:55	LAC	
Methane [74-82-8]	0.0009	J	mg/L	1	0.0002	0.001	NE	RSK 175	01/25/10 11:55	LAC	



Lab Sample ID: C915317-07

Received: 01/15/10 13:00

Matrix: Ground Water

Sampled: 01/14/10 10:40

Work Order: C915317

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	<u>Flaq</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL NE	<u>Method</u> Volatile Fatty Acids	Analyzed 01/21/10 22:06	By MEF	<u>Notes</u>
Acetic Acid [64-19-7]	0.071	U	mg/L	1	0.071	0.50		,			
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	01/21/10 22:06	MEF	
Hexanoic Acid [142-62-1]	0.32	u	mg/L	1	0.32	0.50		Volatile Fatty Acids	01/21/10 22:06	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.098	U	mg/L	1	0.098	0.50		Volatile Fatty Acids	01/21/10 22:06	MEF	
iso-Hexanoic Acid [646-07-1]	0.41	Ü	mg/L	1	0.41	0.50		Volatile Fatty Acids	01/21/10 22:06	MEF	
iso-Pentanoic Acid [503-74-2]	0.13	U	mg/L	1	0.13	0.50		Volatile Fatty Acids	01/21/10 22:06	MEF	
Lactic Acid [50-21-5]	0.088	U	mg/L	1	0.088	0.50	NE	Volatile Fatty Acids	01/21/10 22:06	MEF	
Pentanoic Acid [109-52-4]	0.18	U	mg/L	1	0.18	0.50		Volatile Fatty Acids	01/21/10 22:06	MEF	
Propionic Acid [79-09-4]	0.054	U	mg/L	1	0.054	0.50	NE	Volatile Fatty Acids	01/21/10 22:06	MEF	
Pyruvic Acid [127-17-3]	0.020	U	mg/L	1	0.020	0.50	NE	Volatile Fatty Acids	01/21/10 22:06	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	75	1	70.0	107 %	80-	124	0A20001	Volatile Fatty Acids	01/21/10 22:06	MEF	



Description: Trip Blank Lab Sample ID: C915317-08 Received: 01/15/10 13:00 Sampled: 01/12/10 09:50 Matrix: Water

Sampled By: ENCO Project: White Street Landfill MNA

Work Order: C915317

Volatile Organic Compounds by GCMS

Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	₽y	<u>Notes</u>
0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 13:11	JKG	
0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 13:11	JKG	
0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/23/10 13:11	JKG	
0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/23/10 13:11	JKG	
0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/23/10 13:11	JKG	
0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	01/23/10 13:11	JKG	
0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	01/23/10 13:11	JKG	
0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/23/10 13:11	JKG	
0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/23/10 13:11	JKG	
0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/23/10 13:11	JKG	
0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/23/10 13:11	JKG	
0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/23/10 13:11	JKG	
Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
48	1	50.0	96 %	51-	122	0A23001	EPA 8260B	01/23/10 13:11	JKG	
45	1	50.0	<i>89 %</i>	68-	117	0A23001	EPA 8260B	01/23/10 13:11	JKG	
46	1	50.0	93 %	<i>69</i> -	110	0A23001	EPA 8260B	01/23/10 13:11	ЭKG	
	0.27 0.20 0.30 0.36 0.20 0.48 0.27 0.27 0.34 0.38 0.30 0.40 Results 48 45	0.27 U 0.20 U 0.30 U 0.36 U 0.20 U 0.48 U 0.27 U 0.27 U 0.34 U 0.38 U 0.30 U 0.40 U Results DF 48 1 45 1	0.27 U ug/L 0.20 U ug/L 0.30 U ug/L 0.36 U ug/L 0.20 U ug/L 0.20 U ug/L 0.48 U ug/L 0.27 U ug/L 0.27 U ug/L 0.34 U ug/L 0.38 U ug/L 0.30 U ug/L 0.40 U ug/L Results DF Spike Lvl 48 1 50.0	0.27 U ug/L 1 0.20 U ug/L 1 0.30 U ug/L 1 0.36 U ug/L 1 0.20 U ug/L 1 0.48 U ug/L 1 0.27 U ug/L 1 0.27 U ug/L 1 0.34 U ug/L 1 0.38 U ug/L 1 0.30 U ug/L 1 0.40 U ug/L 1 Results DF Spike Lvl % Rec 48 I 50.0 96 % 45 I 50.0 89 %	0.27 U ug/L 1 0.27 0.20 U ug/L 1 0.20 0.30 U ug/L 1 0.30 0.36 U ug/L 1 0.36 0.20 U ug/L 1 0.20 0.48 U ug/L 1 0.48 0.27 U ug/L 1 0.27 0.27 U ug/L 1 0.34 0.34 U ug/L 1 0.34 0.38 U ug/L 1 0.38 0.30 U ug/L 1 0.30 0.40 U ug/L 1 0.40 Results DF Spike Lvl % Rec % Rec 48 1 50.0 96 % 51- 45 1 50.0 89 % 68-	0.27 U ug/L 1 0.27 1.0 0.20 U ug/L 1 0.20 1.0 0.30 U ug/L 1 0.30 1.0 0.36 U ug/L 1 0.36 1.0 0.20 U ug/L 1 0.20 1.0 0.48 U ug/L 1 0.48 2.0 0.27 U ug/L 1 0.27 1.0 0.27 U ug/L 1 0.27 1.0 0.34 U ug/L 1 0.34 1.0 0.38 U ug/L 1 0.38 1.0 0.30 U ug/L 1 0.30 1.0 0.40 U ug/L 1 0.40 1.0 Results DF Spike Lvl % Rec % Rec Limits 48 1 50.0 96 % 51-122 45	0.27 U ug/L 1 0.27 1.0 1 0.20 U ug/L 1 0.20 1.0 1 0.30 U ug/L 1 0.30 1.0 10 0.36 U ug/L 1 0.36 1.0 5 0.20 U ug/L 1 0.20 1.0 1 0.48 U ug/L 1 0.48 2.0 NE 0.27 U ug/L 1 0.27 1.0 NE 0.27 U ug/L 1 0.27 1.0 NE 0.27 U ug/L 1 0.34 1.0 5 0.34 U ug/L 1 0.34 1.0 5 0.38 U ug/L 1 0.38 1.0 1 0.40 U ug/L 1 0.30 1.0 1 0.40 U ug/L	0.27 U ug/L 1 0.27 1.0 1 EPA 8260B 0.20 U ug/L 1 0.20 1.0 1 EPA 8260B 0.30 U ug/L 1 0.30 1.0 10 EPA 8260B 0.36 U ug/L 1 0.36 1.0 5 EPA 8260B 0.20 U ug/L 1 0.20 1.0 1 EPA 8260B 0.48 U ug/L 1 0.48 2.0 NE EPA 8260B 0.27 U ug/L 1 0.27 1.0 NE EPA 8260B 0.27 U ug/L 1 0.27 1.0 NE EPA 8260B 0.34 U ug/L 1 0.34 1.0 5 EPA 8260B 0.38 U ug/L 1 0.38 1.0 1 EPA 8260B 0.40 U ug/L 1 0.30 1.0	0.27 U Ug/L 1 0.27 1.0 1 EPA 8260B 01/23/10 13:11 0.20 U Ug/L 1 0.20 1.0 1 EPA 8260B 01/23/10 13:11 0.30 U Ug/L 1 0.30 1.0 10 EPA 8260B 01/23/10 13:11 0.36 U Ug/L 1 0.36 1.0 5 EPA 8260B 01/23/10 13:11 0.20 U Ug/L 1 0.20 1.0 1 EPA 8260B 01/23/10 13:11 0.48 U Ug/L 1 0.48 2.0 NE EPA 8260B 01/23/10 13:11 0.27 U Ug/L 1 0.27 1.0 NE EPA 8260B 01/23/10 13:11 0.27 U Ug/L 1 0.27 1.0 1 EPA 8260B 01/23/10 13:11 0.34 U Ug/L 1 0.34 1.0 5 EPA 8260B 01/23/10 13:11 0.38	0.27 U ug/L 1 0.27 1.0 1 EPA 82608 01/23/10 13:11 JKG 0.20 U ug/L 1 0.20 1.0 1 EPA 82608 01/23/10 13:11 JKG 0.30 U ug/L 1 0.30 1.0 10 EPA 8260B 01/23/10 13:11 JKG 0.36 U ug/L 1 0.36 1.0 5 EPA 8260B 01/23/10 13:11 JKG 0.20 U ug/L 1 0.20 1.0 1 EPA 8260B 01/23/10 13:11 JKG 0.48 U ug/L 1 0.48 2.0 NE EPA 8260B 01/23/10 13:11 JKG 0.27 U ug/L 1 0.27 1.0 NE EPA 8260B 01/23/10 13:11 JKG 0.27 U ug/L 1 0.27 1.0 1 EPA 8260B 01/23/10 13:11 JKG 0.34 U ug/L 1



Volatile Organic Compounds by GCMS - Quality Control

Batch 0A22005 - EPA 5030B_MS

Blank (0A22005-BLK1)

Prepared: 01/22/2010 08:51 Analyzed: 01/22/2010 23:20

					Spile	Source	经工程 了	%REC	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	· RPD	沙仙 元 5万亩
Analyte	Result	Flag	MRL	Units	Level	Result	%REC	Limits	RPD	Umit	Notes
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
Benzene	0.20	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
m,p-Xylenes	0.48	U	2.0	ug/L							
o-Xylene	0.27	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	46			ug/L	50.0		93	51-122		-	·
Surrogate: Dibromofluoromethane	48			ug/L	50.0		97	68-117			
Surrogate: Toluene-d8	47			ug/L	50.0		94	69-110			

LCS (0A22005-BS1)

Prepared: 01/22/2010 08:51 Analyzed: 01/22/2010 23:49

	Result Flag	MRL	Units -	. Spike S . Level R	ource cault %REC	SKREC Limits RPD	RPD Limit Notes
1,1-Dichloroethene	20	1.0	ug/L	20.0	101	75-133	
Benzene	20	1.0	ug/L	20.0	99	81-134	
Chlorobenzene	19	1.0	ug/L	20.0	95	83-117	
Toluene	20	1.0	ug/L	20.0	99	71-118	
Trichloroethene	18	1.0	ug/L	20.0	92	75-115	

Matrix Spike (0A22005-MS1)

Source: C914715-04

Prepared: 01/22/2010 08:51 Analyzed: 01/23/2010 00:18

Analyte	Result Fla	j MRL	Units	Spike Lével	Source Result	%REC	%REC Limits	RPD Limit Notes
1,1-Dichloroethene	20	1.0	ug/L	20.0	0.15 U	102	75-133	
Benzene	20	1.0	ug/L	20.0	0.050 U	98	81-134	
Chlorobenzene	19	1.0	ug/L	20.0	0.069 U	96	83-117	
Toluene	21	1.0	ug/L	20.0	0.053 U	103	71-118	
Trichloroethene	19	1.0	ug/L	20.0	0.13 U	95	75-115	

Matrix Spike Dup (0A22005-MSD1)

Source: C914715-04

Prepared: 01/22/2010 08:51 Analyzed: 01/23/2010 00:47

Analyte	Result Flag	MŘĹ	Units	Spike -	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23	1.0	ug/L	20.0	0.15 U	116	75-133	13	20	
Benzene	22	1.0	ug/L	20.0	0.050 U	112	81-134	13	17	
Chlorobenzene	21	1.0	ug/L	20.0	0.069 U	107	83-117	10	16	
Toluene	22	1.0	ug/L	20.0	0.053 U	112	71-118	8	17	
Trichloroethene	21	1.0	ug/L	20.0	0.13 U	104	75-115	9	18	

Batch 0A23001 - EPA 5030B_MS



Volatile Organic Compounds by GCMS - Quality Control

Batch 0A23001 - EPA 5030B_MS

Blank (0A23001-BLK1)

Prepared: 01/23/2010 07:39 Analyzed: 01/23/2010 10:13

			44 T. L.	11 14 M. T. W	Spike	Source	n yer kel	%REC		RP	D A	事点 水。
Analyte	Result	Flag	MRL	Units	Level	Result	%REC	Limits	RPD			ites
1,1,1-Trichloroethane	0.27	U	1.0	ug/L								
Benzene	0.20	U	1.0	ug/L								
Chloroethane	0.30	U	1.0	ug/L								
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L								
Ethylbenzene	0.20	U	1.0	ug/L								
m,p-Xylenes	0.48	U	2.0	ug/L								
o-Xylene	0.27	U	1.0	ug/L								
Toluene	0.27	U	1.0	ug/L								
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L								
Trichloroethene	0.38	U	1.0	ug/L								
Vinyl chloride	0.30	U	1.0	ug/L								
Xylenes (Total)	0.40	U	1.0	ug/L								
Surrogate: 4-Bromofluorobenzene	47		-	ug/L	50.0		94	51-122				
Surrogate: Dibromofluoromethane	46			ug/L	50.0		91	<i>68-117</i>				
Surrogate: Toluene-d8	48			ug/L	50.0		96	69-110				

LCS (0A23001-BS1)

Prepared: 01/23/2010 07:39 Analyzed: 01/23/2010 10:42

Analyte Trans.	Resilt Flag	MRL.	Valts	Spile Level	Source	VALC Limits	RPD Limit Notes
1,1-Dichloroethene	25	1.0	ug/L	20.0	124	75-133	
Benzene	22	1.0	ug/L	20.0	109	81-134	
Chlorobenzene	20	1.0	ug/L	20.0	99	83-117	
Toluene	22	1.0	ug/L	20.0	112	71-118	
Trichloroethene	21	1.0	ug/L	20.0	103	75-115	

Matrix Spike (0A23001-MS1)

Source: C000854-02

Prepared: 01/23/2010 07:39 Analyzed: 01/23/2010 11:12

Analyte 1,1-Dichloroethere	Result Fla	MRL 1.0	Units ug/L	20.0	Result 0.15 U	%REC 121	%REC **Limits 75-133	RPD Limit Notes
Benzene	23	1.0	ug/L	20.0	0.050 U	113	81-134	
Chlorobenzene	21	1.0	ug/L	20.0	0.069 U	105	83-117	
Toluene	22	1.0	ug/L	20.0	0.053 U	111	71-118	
Trichloroethene	21	1.0	ug/L	20.0	0.13 U	106	75-115	

Matrix Spike Dup (0A23001-MSD1)

Source: C000854-02

Prepared: 01/23/2010 07:39 Analyzed: 01/23/2010 11:41

Ánalyte	Result Fi	MRL:	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22	1.0	ug/L	20.0	0.15 U	112	75-133	8	20	
Benzene	21	1.0	ug/L	20.0	0.050 U	104	81-134	8	17	
Chlorobenzene	21	1.0	ug/L	20.0	0.069 U	103	83-117	3	16	
Toluene	22	1.0	ug/L	20.0	0.053 U	108	71-118	2	17	
Trichloroethene	20	1.0	ug/L	20.0	0.13 U	102	75-115	4	18	

Classical Chemistry Parameters - Quality Control



Classical Chemistry Parameters - Quality Control

Batch 0A18007 - NO PREP

Blank (0A18007-BLK1)

Prepared: 01/18/2010 11:37 Analyzed: 01/18/2010 11:51

Analyte	Result	Flag	MRL	Units	Spike Source Skec RPD Limit Notes
Sulfide	0.031	U	0.10	mg/L	

LCS (0A18007-BS1)

Prepared: 01/18/2010 11:37 Analyzed: 01/18/2010 11:51

Analyte	, Repult Plag	MŘL	Units	Solice Level	Source GREC RPD Result %REC Limits RPD Limit Notes	
Sulfide	0.35	0.10	mg/L	0.401	88 80-120	

Matrix Spike (0A18007-MS1)

Prepared: 01/18/2010 11:37 Analyzed: 01/18/2010 11:51

Source: C000045-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC Limits RPD	RPD Limit Notes
Sulfide	-0.012	U	0.10	mg/L	0.401	0.031 U	80-120	QM-07

Matrix Spike Dup (0A18007-MSD1)

Prepared: 01/18/2010 11:37 Analyzed: 01/18/2010 11:51

Source: C000045-04

ANYOTT TYPE	Réside	Flag	MRL	unis	Spile Live	Source Result	%REC Limits RPD	RPD Limit	Notes
Sulfide	-0.012	U	0.10	mg/L	0.401	0.031 U	80-120	25	QM-07

Batch 0A18018 - NO PREP

Blank (0A18018-BLK1)

Prepared: 01/18/2010 14:56 Analyzed: 01/18/2010 15:07

Analyte	Result	Flag	MRL	. Vals	Spile Source 94REC RPD Limit Notes
Sulfide	0.031	U	0.10	mg/L	

LCS (0A18018-BS1)

Prepared: 01/18/2010 14:56 Analyzed: 01/18/2010 15:07

Analyte	Result Flag	MRL	Units	Spike Level	Source Result SARE	%REC Limits	RPD Limit Notes
Sulfide	0.35	0.10	mg/L	0.401	87	80-120	

Matrix Spike (0A18018-MS1)

Prepared: 01/18/2010 14:56 Analyzed: 01/18/2010 15:07

Source: C000079-10

Analyte	Résult Flag	MRL	Units	Spike Level	Source Résult	- %REC	%REC Limits	RPD Limit Notés
Sulfide	0.21	0.10	mg/L	0.401	0.019	49	80-120	QM-07

Matrix Spike Dup (0A18018-MSD1)

Prepared: 01/18/2010 14:56 Analyzed: 01/18/2010 15:07

Source: C000079-10

Analyte	Result Flag	MRL	Units	Spike Level	Source . Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	0.22	0.10	mg/L	0.401	0.019	49	80-120	1	25	QM-07

Batch 0A19003 - NO PREP

Blank (0A19003-BLK1) Prepared: 01/19/2010 09:07 Analyzed: 01/19/2010 11:13



Classical Chemistry Parameters - Quality Control

Batch 0A19003 - NO PREP

Blank (0A19003-BLK1) Continued

Prepared: 01/19/2010 09:07 Analyzed: 01/19/2010 11:13

Analyte		20 PM	MRL	Units	Spike Source Source SPD RPD Light Notes
Sulfate as SO4	0.18	U	5.0	ma/L	

LCS (0A19003-BS1)

Prepared: 01/19/2010 09:07 Analyzed: 01/19/2010 11:46

Analyto	Result Flag	HRL'	Units	Spile	source Result %REC	MREC Limits	RPD Limit Notes	
Sulfate as SO4	47	5.0	mg/L	50.0	93	90-110		

Matrix Spike (0A19003-MS1)

Prepared: 01/19/2010 09:07 Analyzed: 01/19/2010 12:03

Source: C000045-01

Matrix Spike Dup (0A19003-MSD1)

Prepared: 01/19/2010 09:07 Analyzed: 01/19/2010 12:19

Source: C000045-01

Analytic	Result Flag	PRL"	Valte	Spike Level	Solare Rasia	%REC	THE SAME	ŘPD .	RPD Limit	Motes
Sulfate as SO4	98	5.0	mg/L	50.0	42	112	80-120	2	15	

Batch 0A19005 - NO PREP

Blank (0A19005-BLK1)

Prepared: 01/19/2010 09:25 Analyzed: 01/19/2010 19:16

Analyte	Result	Flag	MRL	Units	Spite Source Series RPD Level Result Scree Units RPD Links Photos
Sulfate as SO4	0.18	U	5.0	mg/L	

LCS (0A19005-BS1)

Prepared: 01/19/2010 09:25 Analyzed: 01/19/2010 19:33

Analyte #	Result - Flag	MRL	Units	Spike Level	Source SARC Limits RPD Limit Notes
Sulfate as SO4	49	5.0	mg/L	50.0	97 90-110

Matrix Spike (0A19005-MS1)

Prepared: 01/19/2010 09:25 Analyzed: 01/19/2010 19:49

Source: C000024-01

Analyte	Result Flag	- MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD Limit Notes
Sulfate as SO4	98	5.0	mg/L	50.0	45	106	80-120	

Matrix Spike Dup (0A19005-MSD1)

Prepared: 01/19/2010 09:25 Analyzed: 01/19/2010 20:06

Source: C000024-01

Analyte	Result Flag	MRL	Units	Splike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	98	5.0	mg/L	50.0	45	107	80-120	0.5	15	

Batch 0A19027 - NO PREP

Blank (0A19027-BLK1) Prepared: 01/19/2010 13:30 Analyzed: 01/19/2010 17:34



Classical Chemistry Parameters - Quality Control

Batch 0A19027 - NO PREP

Blank (0A19027-BLK1) Continued

Prepared: 01/19/2010 13:30 Analyzed: 01/19/2010 17:34

Analyte	Result	Flag	MRL	Units	Spike Source AREC RPD Limit Notes
Total Alkalinity	8.0	U	15	mg/L	

LCS (0A19027-BS1)

Prepared: 01/19/2010 13:30 Analyzed: 01/19/2010 17:35

Ā	nalyte x		MRL.	Units	Spile S Leve R	ource esuit %REC	%REC RPD Limit Note	15
	Total Alkalinity	100	15	ma/l	100	102	80-120	

Matrix Spike (0A19027-MS1)

Prepared: 01/19/2010 13:30 Analyzed: 01/19/2010 17:37

Source: C915317-01

Analyte	Result Flag	MRL	Units	Splice Level	Source Result	%REC	%REC*	RPD Limit Notes
Total Alkalinity	43	15	mg/L	100	23	20	80-120	QM-07

Matrix Spike Dup (0A19027-MSD1)

Prepared: 01/19/2010 13:30 Analyzed: 01/19/2010 17:38

Source: C915317-01

AND A STATE OF THE	kesin Fra	MRL	: Units	Spike Leviel	Source Result	%REC	%REC Limits	RPD	* RPD Limit *	Notes
Total Alkalinity	45	15	mg/L	100	23	21	80-120	3	25	QM-07

Batch 0A19028 - NO PREP

Blank (0A19028-BLK1)

Prepared: 01/19/2010 13:33 Analyzed: 01/19/2010 15:01

Analyte	Result	Flag	MRL	Units	Spike Source PAREC Limits RPD Limit Notes
Chloride	1.2	U	5.0	mg/L	

LCS (0A19028-BS1)

Prepared: 01/19/2010 13:33 Analyzed: 01/19/2010 15:02

Analyte	Result Fla	g - MRL	Units	Spile Level	Source Résult %REC	**REC Limits	RPD Limit Notes
Chloride	100	5.0	mg/L	100	104	80-120	

Matrix Spike (0A19028-MS1)

Prepared: 01/19/2010 13:33 Analyzed: 01/19/2010 15:04

Source: C915317-01

Analyte	Kesult Fla	o MRL	Units	Splike Level	Source Result	%REC	%REC Limits	RPD Until Notes
Chloride	100	5.0	mg/L	100	2.1	98	80-120	

Matrix Spike Dup (0A19028-MSD1)

Prepared: 01/19/2010 13:33 Analyzed: 01/19/2010 15:05

Source: C915317-01

Analyte	Result √ Fla		Units	the state of the		%REC	%REC Limits	33240	1 lmile	20 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C
Chloride	97	5.0	mg/L	100	2.1	95	80-120	4	25	

QUALITY CONTROL

Dissolved Gases by GC - Quality Control



Dissolved Gases by GC - Quality Control

Batch 0A25009 - NO PREP ANALYTIX

Blank (0A25009-BLK1)

Prepared: 01/25/2010 10:32 Analyzed: 01/25/2010 11:08

Analyte	Result	Flag	MRL		Spilce Level	Sõurce Result %R	%REC EC Limits	RPD LI	nit Notes
Carbon dioxide	0.780	U	2.50	mg/L					
Ethane	0.0004	U	0.002	mg/L					
Ethene	0.0004	U	0.002	mg/L					
Methane	0.0002	U	0.001	mg/L					

LCS (0A25009-BS1)

Prepared: 01/25/2010 10:32 Analyzed: 01/25/2010 11:12

Analyte	Result Flag	MRL	Units	Spike S Level R	ource esult %AREC	%REC RPD Limits Notes
Carbon dioxide	26.9	2.50	mg/L	26.3	102	71-119
Ethane	0.168	0.002	mg/L	0.179	94	75-123
Ethene	0.153	0.002	mg/L	0.167	92	72-131
Methane	0.0942	0.001	mg/L	0.0958	98	74-116

Matrix Spike (0A25009-MS1)

Source: C915317-01

Prepared: 01/25/2010 10:32 Analyzed: 01/25/2010 11:17

And the second s	Result Flag	MRL	Units	Spike . Level	Source	%REC	%REC RPD Limit Notes
Carbon dioxide	92.5	2.50	mg/L	26.3	71.4	80	71-119
Ethane	0.162	0.002	mg/L	0.179	0.0004 U	91	75-123
Ethene	0.144	0.002	mg/L	0.167	0.0004 U	86	72-131
Methane	0.103	0.001	mg/L	0.0958	0.00147	106	74-116

Matrix Spike Dup (0A25009-MSD1)

Source: C915317-01

Prepared: 01/25/2010 10:32 Analyzed: 01/25/2010 11:20

Analyte 2	Result Fla	MRLE	-Units	Spike Level	Source Result	96REC	%REC Limits		RPD Limit	Notes
Carbon dioxide	95.9	2.50	mg/L	26.3	71.4	93	71-119	4	10	
Ethane	0.161	0.002	mg/L	0.179	0.0004 U	90	75-123	0.5	14	
Ethene	0.144	0.002	mg/L	0.167	0.0004 U	86	72-131	0.4	12	
Methane	0.0925	0.001	mg/L	0.0958	0.00147	95	74-116	11	18	

Volatile Fatty Acids by HPLC - Quality Control

Batch 0A20001 - NO PREP ANALYTIX

Blank (0A20001-BLK1)

Prepared: 01/20/2010 08:47 Analyzed: 01/21/2010 11:41

	THE STATE OF	754	· 道路。	TITLE TO BE	Splice	Source	LAKT DE	%REC	APP.	RPD.	
Analyte	Résult	Flag	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Acetic Acid	0.071	U	0.50	mg/L							
Butyric Acid	0.16	U	0.50	mg/L							
Hexanoic Acid	0.32	U	0.50	mg/L							
HIBA (2-Hydroxyisobutyric Acid)	0.098	U	0.50	mg/L							
iso-Hexanoic Acid	0.41	U	0.50	mg/L							
iso-Pentanoic Acid	0.13	U	0.50	mg/L							
Lactic Acid	0.088	U	0.50	mg/L							
Pentanoic Acid	0.18	U	0.50	mg/L							
Propionic Acid	0.054	U	0.50	mg/L							
Pyruvic Acid	0.020	U	0.50	mg/L							



Volatile Fatty Acids by HPLC - Quality Control

Batch 0A20001 - NO PREP ANALYTIX

Blank (0A20001-BLK1) Continued

Prepared: 01/20/2010 08:47 Analyzed: 01/21/2010 11:41

Analyte	5000 ATT 1000 ATT 10	MRL Units	Spike Level	Source Result %REC	96REC Limits	RPD Limit Notes
Surrogate: Trimethylacetic acid	76	mg/L	70.0	109	80-124	

LCS (0A20001-BS1)

Prepared: 01/20/2010 08:47 Analyzed: 01/21/2010 12:43

		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	ra Cos	Spike	Source	%REC		=RPD	
Analyte	Result Fla	g MRL	Units	Level	Result %REC.	Umits	RPD	Limit	+ Notes
Acetic Acid	18	0.50	mg/L	20.0	91	73-125			
Butyric Acid	24	0.50	mg/L	20.0	118	80-120			
Hexanoic Acid	20	0.50	mg/L	20.0	99	78-120			
HIBA (2-Hydroxyisobutyric Acid)	16	0.50	mg/L	20.0	82	80-120			
iso-Hexanoic Acid	18	0.50	mg/L	20.0	90	80-120			
iso-Pentanoic Acid	19	0.50	mg/L	20.0	95	78-120			
Lactic Acid	14	0.50	mg/L	20.0	69	56-154			
Pentanoic Acid	19	0.50	mg/L	20.0	95	77-120			
Propionic Acid	20	0.50	mg/L	20.0	102	80-120			
Pyruvic Acid	15	0.50	mg/L	20.0	77	37-142			
Surrogate: Trimethylacetic acid	69		mg/L	70.0	98	80-124			

Matrix Spike (0A20001-MS1)

Source: C915317-01

Prepared: 01/20/2010 08:47 Analyzed: 01/21/2010 13:46

	en de la companya de La companya de la co	11, 100 (12,10) - 1,100 (12,10)	- 252 by	Spike	Source a	19.7	%REC	TO THE PARTY OF TH
Analyte	Result Flag	MRL	Units	Level	Result	%REC	Limits	RPD Limit Notes
Acetic Acid	18	0.50	mg/L	20.0	0.071 U	91	73-125	
Butyric Acid	24	0.50	mg/L	20.0	0.16 U	118	80-120	
Hexanoic Acid	20	0.50	mg/L	20.0	0.32 U	102	78-120	
HIBA (2-Hydroxyisobutyric Acid)	19	0.50	mg/L	20.0	0.098 U	94	80-120	
iso-Hexanoic Acid	18	0.50	mg/L	20.0	0.41 U	91	80-120	
iso-Pentanoic Acid	19	0.50	mg/L	20.0	0.13 U	93	78-120	
Lactic Acid	12	0.50	mg/L	20.0	0.088 U	61	56-154	
Pentanoic Acid	19	0.50	mg/L	20.0	0.18 U	93	77-120	
Propionic Acid	20	0.50	mg/L	20.0	0.054 U	102	80-120	
Pyruvic Acid	15	0.50	mg/L	20.0	0.020 U	76	37-142	
Surrogate: Trimethylacetic acid	67	-	mg/L	70.0		96	80-124	

Matrix Spike Dup (0A20001-MSD1)

Source: C915317-01

Prepared: 01/20/2010 08:47 Analyzed: 01/21/2010 14:48

Analyte	Result Fla	g MRL	Units	Spike Level	Source Result	%REC	# %REC	RPD	RPD Limit Notes
Acetic Acid	18	0.50	mg/L	20.0	0.071 U	92	73-125	0.8	10
Butyric Acid	24	0.50	mg/L	20.0	0.16 U	120	80-120	1	10
Hexanoic Acid	20	0.50	mg/L	20.0	0.32 U	98	78-120	4	34
HIBA (2-Hydroxyisobutyric Acid)	18	0.50	mg/L	20.0	0.098 U	91	80-120	3	15
iso-Hexanoic Acid	18	0.50	mg/L	20.0	0.41 U	91	80-120	0.6	15
iso-Pentanoic Acid	19	0.50	mg/L	20.0	0.13 U	93	78-120	0.5	15
Lactic Acid	13	0.50	mg/L	20.0	0.088 U	64	56-154	5	19
Pentanoic Acid	19	0.50	mg/L	20.0	0.18 U	95	77-120	2	10
Propionic Acid	21	0.50	mg/L	20.0	0.054 U	103	80-120	1	10
Pyruvic Acid	15	0.50	mg/L	20.0	0.020 U	77	37-142	1	10



Volatile Fatty Acids by HPLC - Quality Control

Batch 0A20001 - NO PREP ANALYTIX

Matrix Spike Dup (0A20001-MSD1) Continued

Prepared: 01/20/2010 08:47 Analyzed: 01/21/2010 14:48

Source: C915317-01

Analyte -	Result Flag	MRL Units	The state of the s	Source Result %REC	%REC	RPD Limit Notes
Surrogate: Trimethylacetic acid	69	mg/L	70.0	98	80-124	

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 0A26026 - NO PREP

Blank (0A26026-BLK1)

Prepared: 01/26/2010 13:39 Analyzed: 01/26/2010 14:30

Analyte	Result	Flag	MRL	Units	Spile Source %REC RPD Level Result %REC Limits RPD Limit Notes
Total Organic Carbon	0.32	H	1.0	ma/t	

LCS (0A26026-BS1)

Prepared: 01/26/2010 13:39 Analyzed: 01/26/2010 14:30

Analyte		of Francisco	Units	Solice Level	Source Result %REC	%REC Limits RPD	RPD Notes
Total Organic Carbon	44	1.0	ma/L	41.6	106	85-115	

Matrix Spike (0A26026-MS1)

Prepared: 01/26/2010 13:39 Analyzed: 01/26/2010 14:30

Source: A000430-04

Ansyle 2	Result Flag	Veri	Units	Spile Level	Source			RPD Limit Notes
Total Organic Carbon	45	1.0	mg/L	40.0	0.32 U	113	85-115	

Matrix Spike Dup (0A26026-MSD1)

Prepared: 01/26/2010 13:39 Analyzed: 01/26/2010 14:30

Source: A000430-04

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Total Organic Carbon	43	1.0	mg/L	40.0	0.32 U	107	85-115	5	21	



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
บ	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
Е	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.



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Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 1 of 8
Lab Proj #: P1001156
Report Date: 01/22/10
Client Proj Name: White Street LF

Client Proj #: 1584-98-081

Laboratory Results

Lab Sample #	Client Sample ID
P1001156-01	MW-14
P1001156-02	II-1
P1001156-03	11-2
P1001156-04	II-2B
P1001156-05	II-7
P1001156-06	II-7B
P1001156-07	11-9

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By:	Abbie tallo	Date:	1-22-10	
Project Manager:	Debbie Hallo			

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.

Please call customer service at (412)826-5245 or email customerservice@microseeps.com.

Case Narrative:

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 2 of 8 Lab Proj #: P1001156 Report Date: 01/22/10

Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description	<u>Matrix</u>	Lab Sample #		Sampled Date/Time	Received	
MW-14	Vapor	P1001156-01		13 Jan. 10 16:19	15 Jan. 10 11:2	<u>!</u> 7
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	<0.600	0.600	nM	AM20GAX	1/18/10	si

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 3 of 8 Lab Proj #: P1001156 Report Date: 01/22/10

Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-1	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1001156-02		Sampled Date/Time 13 Jan. 10 10:20	<u>Received</u> 15 Jan. 10 11:2	27
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	2.100	0.600	nM	AM20GAX	1/18/10	si

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 4 of 8
Lab Proj #: P1001156
Report Date: 01/22/10 Client Proj Name: White Street LF

Client Proj #: 1584-98-081

Sample Description II-2	<u>Matrix</u> Vapor	<u>Lab Sample :</u> P1001156-03	_	Sampled Date/Time 12 Jan. 10 10:30	<u>Received</u> 15 Jan. 10 11:2	27
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	2.000	0.600	пМ	AM20GAX	1/18/10	sl

Client Name: S & ME Contact Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 5 of 8
Lab Proj #: P1001156
Report Date: 01/22/10
Client Proj Name: White Street LF

Client Proj #: 1584-98-081

Sample Description II-2B	<u>Matrix</u> Vapor	<u>Lab Sample 7</u> P1001156-04	-	Sampled Date/Time 14 Jan. 10 9:40	<u>Received</u> 15 Jan. 10 11:2	27
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
<u>RiskAnalysis</u> N Hydrogen	1.100	0.600	nM	AM20GAX	1/18/10	sl

Contact Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 6 of 8 Lab Proj #: P1001156 Report Date: 01/22/10

Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-7	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1001156-05		Sampled Date/Time 13 Jan. 10 14:00	<u>Received</u> 15 Jan. 10 11:2	27
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	3.700	0.600	nM	AM20GAX	1/18/10	si

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 7 of 8 Lab Proj #: P1001156

Report Date: 01/22/10 Client Proj Name: White Street LF

Client Proj #: 1584-98-081

Sample Description II-7B	<u>Matrix</u> Vapor	<u>Lab Sample</u> P1001156-0		Sampled Date/Time 13 Jan. 10 12:30	<u>Received</u> 15 Jan. 10 11:	27
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N. Hydrogen	3.600	0.600	nMi	AM20GAX	1/18/10	si

Client Name: S & ME Contact Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 8 of 8 Lab Proj #: P1001156 Report Date: 01/22/10

Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-9	<u>Matrix</u> Vapor	<u>Lab Sample</u> P1001156-		Sampled Date/Time 14 Jan. 10 11:15	<u>Received</u> 15 Jan. 10 11:2	27
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis N Hydrogen	<0.600	0.600	nM	AM20GAX	1/18/10	sl



12

Microseeps CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245	Microseeps, In	: - 220 V	Villiåm	Pitt W	y - Pi	tsbu	gh, P	A 15	238		Fax	No. : (412) 8	26-3433	
Company: S&ME,	Inc.		<u>.</u> j			Param	eters i	eque	sted			Results to :	5\$U	IE Inc
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YELLOW COPY: Laboratory File

PINK COPY: Submitter

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Thursday, June 24, 2010

S&ME, Inc. (SM004)

Attn: Connel Ware

3718 Old Battleground Rd.

Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill MNA

ENCO Workorder: C004742

Dear Connel Ware,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, April 30, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

Thuck Sut



SAMPLE SUMMARY/LABORATORY CHRONICLE

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 15:12
EPA 310.2	05/13/10	05/04/10 09:39	5/4/2010 10:35
EPA 353.2	05/27/10	05/04/10 12:49	5/4/2010 13:38
EPA 8260B	05/13/10	05/06/10 15:38	5/7/2010 10:18
RSK 175	05/13/10	05/05/10 10:11	5/7/2010 09:37
SM18 4500-S D	05/06/10	05/03/10 12:04	5/3/2010 12:04
SM18 5310B	05/27/10	05/12/10 10:55	5/12/2010 17:58
Volatile Fatty Acids	05/13/10	05/05/10 08:58	5/5/2010 15:55

Client ID: 4103-111	·····································	Lab ID: C004742-02	ampled	: 04/29/10 10:15 Received: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Ti	ne(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10	7:43	5/4/2010 15:33
EPA 353.2	05/27/10	05/04/10	2:49	5/4/2010 13:38
EPA 8260B	05/13/10	05/06/10	5:38	5/7/2010 10:47
RSK 175	05/13/10	05/05/10	0:11	5/5/2010 12:09
SM18 4500-S D	05/06/10	05/03/10	2:04	5/3/2010 12:04
SM18 5310B	05/27/10	05/12/10	0:55	5/12/2010 17:58
Volatile Fatty Acids	05/13/10	05/05/10	8:58	5/5/2010 16:57

Client ID: 4103-111	Lib ID:	C004742-02RE1 : Sampled: 04/2	9/10 10:15 Riscoved: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 15:53
EPA 310.2	05/13/10	05/04/10 09:39	5/4/2010 11:17
RSK 175	05/13/10	05/05/10 10:11	5/7/2010 09:4 4

Client ID: 4103-112	Lab ID:	C004742-03 Sampled: 04	/29/10 09:00 Received: 04/30/10 13:1
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 16:14
EPA 310.2	05/13/10	05/04/10 09:39	5/4/2010 10:37
EPA 353.2	05/27/10	05/04/10 12:49	5/4/2010 13:38
EPA 8260B	05/13/10	05/06/10 15:38	5/7/2010 11:16
RSK 175	05/13/10	05/05/10 10:11	5/5/2010 12:13
SM18 4500-S D	05/06/10	05/03/10 12:04	5/3/2010 12:04
SM18 5310B	05/27/10	05/12/10 10:55	5/12/2010 17:58
Volatile Fatty Acids	05/13/10	05/05/10 08:58	5/5/2010 18:00



Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 16:35
EPA 310.2	05/13/10	05/04/10 09:39	5/4/2010 10:38
EPA 353.2	05/27/10	05/04/10 12:49	5/4/2010 13:38
EPA 8260B	05/13/10	05/06/10 15:38	5/7/2010 11:45
RSK 175	05/13/10	05/05/10 10:11	5/5/2010 12:16
SM18 4500-S D	05/06/10	05/03/10 12:04	5/3/2010 12:04
SM18 5310B	05/27/10	05/12/10 10:55	5/12/2010 17:58
Volatile Fatty Acids	05/13/10	05/05/10 08:58	5/5/2010 19:02

Client ID: 4103-112	B Lab ID:	: C004742-04RE1 Sampled: 04/29	9/10 16:30 Received; 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
RSK 175	05/13/10	05/05/10 10:11	5/6/2010 09:06

lient 10; 4103-117	D:	C004742-05 Sampled: 04/	29/10 12:50 Received: 04/30/10 13	S:15 F
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 17:37	
EPA 310.2	05/13/10	05/04/10 09:39	5/4/2010 10:39	
EPA 353.2	05/27/10	05/04/10 12:49	5/4/2010 13:38	
EPA 8260B	05/13/10	05/06/10 15:38	5/7/2010 12:14	
RSK 175	05/13/10	05/05/10 10:11	5/5/2010 12:20	
SM18 4500-S D	05/06/10	05/03/10 12:04	5/3/2010 12:04	
SM18 5310B	05/27/10	05/12/10 10:55	5/12/2010 17:58	
Volatile Fatty Acids	05/13/10	05/05/10 08:58	5/5/2010 20:05	

Client ID: - 4103-III	Cab I	D: C004742-05RE1 Sampled: _04/29/	10 12:50 Received: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
RSK 175	05/13/10	05/05/10 10:11	5/7/2010 09:57

lient ID: 1-4103-117B	Lab ID:	C004742-06 Sampled: .04	/29/10 11:30 Received: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 17:57
EPA 310.2	05/13/10	05/04/10 09:39	5/4/2010 10:42
EPA 353.2	05/27/10	05/04/10 12:49	5/4/2010 13:38
EPA 8260B	05/13/10	05/06/10 15:38	5/7/2010 12:43
RSK 175	05/13/10	05/05/10 10:11	5/5/2010 12:24
SM18 4500-S D	05/06/10	05/03/10 12:04	5/3/2010 12:04
SM18 5310B	05/27/10	05/12/10 10:55	5/12/2010 17:58
Volatile Fatty Acids	05/13/10	05/05/10 08:58	5/5/2010 21:08

Client ID: 4103-II	78 Lab ID:	: C004742-06RE1 Sampled: 04/29	9/10 11:30 Received: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 18:18



Client ID: 4103-119	Lab ID:	C004742-07 Sampled: 04/2	29/10 17:45 Recaived: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/27/10	05/04/10 07:43	5/4/2010 18:39
EPA 353.2	05/27/10	05/04/10 12:49	5/4/2010 13:38
EPA 8260B	05/13/10	05/06/10 15:38	5/7/2010 13:12
RSK 175	05/13/10	05/05/10 10:11	5/5/2010 12:28
SM18 4500-S D	05/06/10	05/03/10 12:04	5/3/2010 12:04
SM18 5310B	05/27/10	05/12/10 10:55	5/12/2010 17:58
Volatile Fatty Acids	05/13/10	05/05/10 08:58	5/5/2010 22:10

Client ID: 4103-II9	Lab ID	C004742-07RE1 Sampled: 04/	29/10 17:45 Received: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 310.2	05/13/10	05/04/10 09:39	5/4/2010 11:17
RSK 175	05/13/10	05/05/10 10:11	5/6/2010 09:14

Client ID: 4103-Tr	ip Blank Lab ID:	C004742-08 Sampled: 04/2	9/10 09:00 Received: 04/30/10 13:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	05/13/10	05/06/10 15:38	5/7/2010 13:42



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Hert ID: 4103-MW14		a a septemb	1.1.1.1.187 <u>s</u>		C004742-01		Simple of Asset Will	. Service supplementation of the	
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	111		1	0.780	2.50	NE	mg/L	RSK 175	
Chloride	3.9	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Total Alkalinity	16		1	8.0	15	NE	mg/L	EPA 310.2	
Total Organic Carbon	0.32	J	1	0.32	1.0	NE	mg/L	SM18 5310B	
ent (D): // 4103-111		1 - 1 - 15 - <u>1</u>	- (1274) 1277)	Lab ID:	C004742-02	A PARK H		SALE E	in higher
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	2.1	J	1	0.050	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	4.4		1	0.10	1.0	1	ug/L	EPA 8260B	
Acetone	2.9	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Benzene	0.72	J	1	0.050	1.0	1	ug/L	EPA 8260B	
Chlorobenzene	1.4	J	1	0.069	1.0	3	ug/L	EPA 8260B	
Chloroethane	0.74	j	1	0.18	1.0	10	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	3.1	j	1	0.075	1.0	5	ug/L	EPA 8260B	
Ethane	0.0007	j	1	0.0004	0.002	NE	mg/L	RSK 175	
Methane	0.007		1	0.0002	0.001	NE	mg/L	RSK 175	
Sulfate as SO4	14	j	1	0.12	5.0	250000	mg/L	EPA 300.0	
Total Organic Carbon	23	-	1	0.32	1.0	NE	mg/L	SM18 5310B	
Trichloroethene	0.55	j	1	0.13	1.0	1	ug/L	EPA 8260B	
/inyl chloride	0.49	j	1	0.083	1.0	1	ug/L	EPA 8260B	
nity) chorac	0.15	•	•			_			
on do: sigo-ui	7.00	A STATE OF THE	F-12-414	Lab 10:	C004742-02		等(數量方字 表式 表 例		to an indicate
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	5 44	D	10	7.80	25.0	NE	mg/L	RSK 175	
Chloride	390	D	10	0.18	50	NE	mg/L	EPA 300.0	
	390 350	D D	10 3.98	0.18 32	50 60	ne ne	mg/L mg/L	EPA 300.0 EPA 310.2	
otal Alkalinity	350		3.98			NE	mg/L		
otal Alkalinity	350	D	3.98	32	60	NE	mg/L	EPA 310.2	Notes
otal Alkalinity ent.ID: 4103-112 unalyte	350	D	3.98	32 Lab XD ; **	60 C0047/42-03	NE	mg/L	EPA 310.2	
otal Alkalinity enc. TD: 4103-112 unalyte ,1-Dichloroethane	350 Results	D	3.98 DF	32 Lab ID: MDL	60 C004742-03 M RL	NE NC SWSL	mg/L Units	EPA 310.2 Method	
rotal Alkalinity and TD: 4103-112 unalyte ,1-Dichloroethane ,4-Dichlorobenzene	350 Results 9.2	D Flag	3.98 DF	32 Lab 10: MDL 0.050	60 C0047/42-03 MRL 1.0	NE NC SWSL 5	mg/L Units ug/L	EPA 310.2 Method EPA 8260B	
Cotal Alkalinity Analyte ,1-Dichloroethane ,4-Dichlorobenzene Benzene	350 Results 9.2 0.46	D TECHNIST Flag	3.98 DF 1	32 MDL 0.050 0.10	60 C004742-03 MRL 1.0 1.0	NE NC SWSL 5 1	mg/L Units ug/L ug/L	Method EPA 8260B EPA 8260B	
cotal Alkalinity analyte ,1-Dichloroethane ,4-Dichlorobenzene denzene carbon dioxide	350 Results 9.2 0.46 0.79	D TECHNIST Flag	3.98 DF 1 1 1	MDL 0.050 0.10 0.050	60 C004742-03 MRL 1.0 1.0 1.0	NE NE NC SWSL 5 1 1	mg/L Units ug/L ug/L ug/L ug/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B	
Cotal Alkalinity eit. ID: 4103-112 Analyte , 1-Dichloroethane , 4-Dichlorobenzene Benzene Carbon dioxide Chloride	350 Results 9.2 0.46 0.79 164	D TECHNIST Flag	3.98 DF 1 1 1 1	MDL 0.050 0.10 0.050 0.780	60 C004742-03 MRL 1.0 1.0 1.0 2.50	NE NE NE NE	mg/L Units ug/L ug/L ug/L mg/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175	
Cotal Alkalinity Alkalinity Alkalinity Alayte , 1-Dichloroethane , 4-Dichlorobenzene Genzene Carbon dioxide Chloride Chlorobenzene	350 Results 9.2 0.46 0.79 164 12 0.48	Flag	3.98 DF 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018	60 C004742-03 MRL 1.0 1.0 1.0 2.50 5.0	NE NC SWSL 5 1 1 NE NE	mg/L Units ug/L ug/L ug/L mg/L mg/L mg/L ug/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B	
Inalyte ,1-Dichloroethane ,4-Dichlorobenzene Benzene Carbon dioxide Chloride chlorobenzene is-1,2-Dichloroethene	350 Results 9.2 0.46 0.79 164 12	Flag	3.98 DF 1 1 1 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018 0.069	60 MRL 1.0 1.0 1.0 2.50 5.0 1.0	NE NC SWSL 5 1 1 NE NE NE 3	mg/L Units ug/L ug/L ug/L mg/L mg/L mg/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B	
Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene Carbon dioxide Chloride Chlorobenzene cis-1,2-Dichloroethene dethane	350 Results 9.2 0.46 0.79 164 12 0.48 12	Flag	3.98 DF 1 1 1 1 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075	60 COO 17.42-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 1.0	NE NE SWSL 5 1 1 NE NE NE 3 5	mg/L Units ug/L ug/L ug/L mg/L mg/L ug/L ug/L ug/L ug/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B	
Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene 2enzene 2arbon dioxide 2hloride 2hlorobenzene is-1,2-Dichloroethene 4ethane 2ulfate as SO4	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47	Flag J J	3.98 DF 1 1 1 1 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002	60 COO4742-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 1.0 0.001	NE NC SWSL 5 1 1 NE NE NE 3 5 NE	mg/L Units Ug/L Ug/L Ug/L mg/L mg/L ug/L ug/L ug/L ug/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B EPA 8260B EPA 8260B	
Analyte ,1-Dichloroethane ,4-Dichlorobenzene Benzene Carbon dioxide Chloride Chlorobenzene dis-1,2-Dichloroethene Methane Sulfate as SO4 Fetrachloroethene	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47 19 3.2	Flag J J	3.98 DF 1 1 1 1 1 1 1 1 1	32 MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002 0.12 0.099	60 C004742-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 0.001 5.0	NE NC SWSL 5 1 1 NE NE NE 3 5 NE 250000	mg/L Units Ug/L Ug/L mg/L mg/L mg/L mg/L ug/L ug/L ug/L mg/L mg/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B	
Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene Benzene Carbon dioxide Chloride Chlorobenzene dis-1,2-Dichloroethene Methane Sulfate as SO4 Fetrachloroethene Fotal Alkalinity	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47 19 3.2 330	Flag J J	3.98 DF 1 1 1 1 1 1 2	32 MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002 0.12 0.099 16	60 CO04742-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 0.001 5.0 1.0 30	NE NE 3 5 NE 250000 1	mg/L Units ug/L ug/L mg/L mg/L ug/L ug/L ug/L ug/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B	
Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene Benzene Carbon dioxide Chloride Chlorobenzene dethane Sulfate as SO4 Fetrachloroethene Fotal Alkalinity Fotal Organic Carbon	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47 19 3.2 330 2.0	Flag J J	3.98 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002 0.12 0.099 16 0.32	60 COOLTAZ-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 0.001 5.0 1.0 30 1.0	NE NC SWSL 5 1 1 NE NE 3 5 NE 250000 1 NE NE NE	mg/L Units ug/L ug/L mg/L mg/L ug/L ug/L ug/L ug/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 310.0 EPA 8260B EPA 310.2 SM18 5310B	
Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene Benzene Carbon dioxide Chloride Chlorobenzene iis-1,2-Dichloroethene Methane Sulfate as SO4 Fetrachloroethene Fotal Alkalinity Fotal Organic Carbon Enchloroethene	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47 19 3.2 330 2.0 2.6	Flag J J	3.98 DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002 0.12 0.099 16 0.32 0.13	60 COO-7-42-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 0.001 5.0 1.0 30 1.0 1.0	NE NC SWSL 5 1 1 NE NE 3 5 NE 250000 1 NE NE NE	mg/L Units ug/L ug/L mg/L mg/L ug/L ug/L ug/L mg/L mg/L mg/L ug/L ug/L ug/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 300.0 EPA 8260B	
Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene Benzene Carbon dioxide Chloride Chlorobenzene Sis-1,2-Dichloroethene Methane Sulfate as SO4 Fetrachloroethene Fotal Alkalinity Fotal Organic Carbon Frichloroethene Frichloroethene Frichloroethene	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47 19 3.2 330 2.0	Flag J J	3.98 DF 1 1 1 1 1 1 1 1 1 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002 0.12 0.099 16 0.32	60 COOLTAZ-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 0.001 5.0 1.0 30 1.0	NE NC SWSL 5 1 1 NE NE 3 5 NE 250000 1 NE NE NE	mg/L Units ug/L ug/L mg/L mg/L ug/L ug/L ug/L ug/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 310.2 Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B EPA 8260B EPA 8260B EPA 300.0 EPA 8260B SSK 175 EPA 300.0 EPA 8260B EPA 310.2 SM18 5310B EPA 8260B	
Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene Benzene Carbon dioxide Chloride Chlorobenzene Sulfate as SO4 Fetrachloroethene Fotal Alkalinity Fotal Organic Carbon Frichloroethene Frichloroethene Frichloroethene Frichlorofluoromethane Frichlorofluoromethane Frichlorofluoromethane Frichlorofluoromethane	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47 19 3.2 330 2.0 2.6 1.7 3.3	Flag J J	3.98 DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	32 MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002 0.12 0.099 16 0.32 0.13 0.15 0.083	60 MRL 1.0 1.0 1.0 2.50 5.0 1.0 0.001 5.0 1.0 1.0 1.0	NE NC SWSL 5 1 1 NE NE NE 250000 1 NE NE 1 1 1	mg/L Units ug/L ug/L mg/L mg/L ug/L ug/L mg/L mg/L ug/L ug/L ug/L ug/L ug/L ug/L	Method EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B RSK 175 EPA 300.0 EPA 8260B RSK 175 EPA 300.0 EPA 8260B	Notes
Chloride Total Alkalinity Analyte 1,1-Dichloroethane 1,4-Dichlorobenzene Benzene Carbon dioxide Chloride Chlorobenzene cis-1,2-Dichloroethene Methane Sulfate as SO4 Tetrachloroethene Total Alkalinity Total Organic Carbon Trichlorofluoromethane Trichlorofluoromethane (/inyl chloride	350 Results 9.2 0.46 0.79 164 12 0.48 12 1.47 19 3.2 330 2.0 2.6 1.7	Flag J J	3.98 DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MDL 0.050 0.10 0.050 0.780 0.018 0.069 0.075 0.0002 0.12 0.099 16 0.32 0.13 0.15	60 COO-7/42-03 MRL 1.0 1.0 1.0 2.50 5.0 1.0 0.001 5.0 1.0 30 1.0 1.0 1.0	NE NC SWSL 5 1 1 NE NE 3 5 NE 250000 1 NE NE 1 1 1	mg/L Units ug/L ug/L mg/L mg/L ug/L ug/L mg/L mg/L ug/L ug/L ug/L ug/L ug/L ug/L	Method EPA 8260B EPA 8260B EPA 8260B EPA 8260B RSK 175 EPA 300.0 EPA 8260B EPA 8260B EPA 8260B EPA 300.0 EPA 8260B EPA 300.0 EPA 8260B EPA 300.0 EPA 8260B EPA 300.0 EPA 8260B EPA 310.2 SM18 5310B EPA 8260B EPA 8260B EPA 8260B	Notes



Client ID: 4103-II2B	等""特别"。	(\$33°C)	1.5	Lab ID;	C004742-04			-8.75 to 1.48 (1985) (1985)	C. C
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Benzene	1.1		1	0.050	1.0	1	ug/L	EPA 8260B	
Carbon disulfide	1.6	J	1	0.54	5.0	100	ug/L	EPA 8260B	
Chloride	11		1	0.018	5.0	NE	mg/L	EPA 300.0	
Chlorobenzene	0.52	J	1	0.069	1.0	3	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	16		1	0.075	1.0	5	ug/L	EPA 8260B	
Methane	1.33		1	0.0002	0.001	NE	mg/L	RSK 175	
Sulfate as SO4	21	3	1	0.12	5.0	250000	mg/L	EPA 300.0	
Tetrachloroethene	2.2		1	0.099	1.0	1	ug/L	EPA 8260B	
Total Alkalinity	200	D	2	16	30	NE	mg/L	EPA 310.2	
Total Organic Carbon	2.1		1	0.32	1.0	NE	mg/L	SM18 5310B	
Trichloroethene	2.5		1	0.13	1.0	1	ug/L	EPA 8260B	
Trichlorofluoromethane	1.6		1	0.15	1.0	1	ug/L	EPA 8260B	
Vinyl chloride	3.5		1	0.083	1.0	1	ug/L	EPA 8260B	
lient ID: 4103-1128		1048		Lab ID:	C004742-04	RE1			ng agap agamanan g Militi Sanak Kamera
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	354	D	10	7.80	25.0	NE	mg/L	RSK 175	
Went ID: 4103-117	(*************************************			Lab ID:	C004742-05				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	1.3		1	0.050	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	0.43	j	1	0.10	1.0	1	ug/L	EPA 8260B	
Benzene	0.68	j	1	0.050	1.0	1	ug/L	EPA 8260B	
Chloride	18	,	1	0.018	5.0	NE NE	mg/L	EPA 300.0	
cis-1,2-Dichloroethene	3.5	j	1	0.075	1.0	5	ug/L	EPA 8260B	
Methane	0.029	,	1	0.0002	0.001	NE	mg/L	RSK 175	
Sulfate as SO4	14	j	1	0.12	5.0	250000	mg/L	EPA 300.0	
Tetrachloroethene	0.40	j	1	0.12	1.0	1	ug/L	EPA 8260B	
Toluene	0.40	j	1	0.053	1.0	1	ug/L	EPA 8260B	
	70	,	1	8.0	1.0	NE		EPA 310.2	
Total Alkalinity						NE NE	mg/L	SM18 5310B	
Total Organic Carbon Vinyl chloride	3.5 0.75	j	1 1	0.32 0.083	1.0 1.0	1	mg/L ug/L	EPA 8260B	
en (D): 4103-117		25#1#1 	JAZ	Lab ID:	C004742-05	entropia de la composició de la composició La composició de la compo		Markad	Mates
Analyte Carbon dioxide	Results 430	Flag D	DF	7.80	MRL 25.0	NC SWSL NE	Units mg/L	Method RSK 175	Notes
Singularing and the second	J. S. Te-Krabe J. S.	ورا ووائزال	•10.23574	1 L. W.		फ़िल ् १५३३,४ ।	าได้เลืองสัมพิเพลาซ์กิจ		ng di S hakkang Ladish
ett ID; 4103-1178				lab 10;	C004742-06	era i Ariki sa jir		The second of the second secon	
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Chloride	4.8	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Methane	0.002		1	0.0002	0.001	NE	mg/L	RSK 175	
Nitrate as N	0.23	J	1	0.021	0.10	10000	mg/L	EPA 353.2	
Tetrachloroethene	0.45	J	1	0.099	1.0	1	ug/L	EPA 8260B	
Fotal Alkalinity	110		1	8.0	15	NE	mg/L	EPA 310.2	
Total Organic Carbon	2.3		1	0.32	1.0	NE	mg/L	SM18 5310B	
ent ID: 4103-1178	$\hat{\mathbf{s}}_{j}^{\mathrm{obs}} = \underbrace{\frac{\partial \mathcal{F}_{j}^{\mathrm{obs}}}{\partial \mathbf{s}_{j}^{\mathrm{obs}}}}_{\mathbf{s}_{j}^{\mathrm{obs}}} \underbrace{\hat{\mathbf{s}}_{j}^{\mathrm{obs}}}_{\mathbf{s}_{j}^{\mathrm{obs}}} + \mathbf{s}_{j}^{\mathrm{obs}},$	t. Off		Lab ID:	C004742-06	RE1			N. M. Control
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Sulfate as SO4	100								



Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	5.2		1	0.050	1.0	5	ug/L	EPA 8260B	
Chloride	12		1	0.018	5.0	NE	mg/L	EPA 300.0	
cis-1,2-Dichloroethene	11		1	0.075	1.0	5	ug/L	EPA 8260B	
Methane	0.006		1	0.0002	0.001	NE	mg/L	RSK 175	
Nitrate as N	0.12	J	1	0.021	0.10	10000	mg/L	EPA 353.2	
Sulfate as SO4	27	j	1	0.12	5.0	250000	mg/L	EPA 300.0	
Total Organic Carbon	4.5		1	0.32	1.0	NE	mg/L	SM18 5310B	
Vinyl chloride	0.66	J	1	0.083	1.0	1	ug/L	EPA 8260B	
lent ID: 4103-119		14. 14 V 1440	- (1) - (1)	Lab ID:	C004742-07	RE1			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	295	D	10	7.80	25.0	NE	mg/L	RSK 175	
Total Alkalinity	110	D	2	16	30	NE	mg/L	EPA 310.2	



ANALYTICAL RESULTS

Description: 4103-MW14 **Lab Sample ID:** C004742-01

Sampled: 04/29/10 14:50

Sampled By: Gary Simcox

Received: 04/30/10 13:15

Work Order: C004742

Volatile Organic Compounds by GCMS

Project: White Street Landfill MNA

Matrix: Ground Water

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 10:18	JKG	
1,1,2-Trichkoroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
1,1-Dichloroethane [75-34-3] ^	0.050	U	ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	υ	ug/L	1	0.15	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/07/10 10:18	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 10:18	ЖG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 10:18	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 10:18	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	υ	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 10:18	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 10:18	JKG	
Acrylonitrile [107-13-1] ^	2.1	υ	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 10:18	JKG	
Benzene [71-43-2] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 10:18	JKG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 10:18	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 10:18	JKG	
Carbon disulfide [75-15-0] ^	0.54	υ	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 10:18	JKG	
Carbon tetrachionde [56-23-5] ^	0.082	υ	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Chlorobenzene [108-90-7] ^	0.069	U	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 10:18	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 10:18	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.075	U	ug/L	1	0.075	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 10:18	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 10:18	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	05/07/10 10:18	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Styrene [100-42-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Tetrachloroethene [127-18-4] ^	0.099	U	ug/L	1	0.099	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 10:18	JKG	
Trichloroethene [79-01-6] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 10:18	JKG	



Description: 4103-MW14 **Matrix:** Ground Water

Lab Sample ID: C004742-01 **Sampled:** 04/29/10 14:50

Received: 04/30/10 13:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C004742

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Trichlorofluoromethane [75-69-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Vinyl acetate [108-05-4] ^	0.98	Ü	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 10:18	ЭKG	
Vinyl chloride [75-01-4] ^	0.083	U	ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 10:18	JKG	
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/07/10 10:18	JKG	
Surrogates	Results	DF	Spike Lvi	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-	122	0E06030	EPA 8260B	05/07/10 10:18	JKG	
Dibromofluoromethane	47	1	50.0	94 %	68-	117	0E06030	EPA 8260B	05/07/10 10:18	JKG	
Toluene-d8	47	1	50.0	94 %	<i>69</i> -	110	0E06030	EPA 8260B	05/07/10 10:18	JKG	



Description: 4103-MW14

Lab Sample ID: C004742-01

Received: 04/30/10 13:15

Matrix: Ground Water

Sampled: 04/29/10 14:50

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	3.9	J	mg/L	1	0.018	5.0	NE	EPA 300.0	05/04/10 15:12	PEV	
Nitrate as N [14797-55-8] ^	0.021	U	mg/L	1	0.021	0.10	10000	EPA 353.2	05/04/10 13:38	PEV	
Sulfate as SO4 [14808-79-8] ^	0.12	υ	mg/L	1	0.12	5.0	250000	EPA 300.0	05/04/10 15:12	PEV	
Sulfide [18496-25-8] ^	0.031	υ	mg/L	1	0.031	0.10	1000	SM18 4500-S D	05/03/10 12:04	JOC	
Total Alkalinity [471-34-1] ^	16		mg/L	1	8.0	15	NE	EPA 310.2	05/04/10 10:35	PEV	



Description: 4103-MW14

Lab Sample ID: C004742-01 **Sampled:** 04/29/10 14:50

Received: 04/30/10 13:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C004742

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DE</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	0.32	J	mg/L	1	0.32	1.0	NE	SM18 5310B	05/12/10 17:58	RSA	



Description: 4103-MW14

Matrix: Ground Water

Lab Sample ID: C004742-01

Sampled: 04/29/10 14:50

Received: 04/30/10 13:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C004742

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>D</u> E	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	111		mg/L	1	0.780	2.50	NE	RSK 175	05/07/10 09:37	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/07/10 09:37	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/07/10 09:37	LAC	
Methane [74-82-8]	0.0002	U	mg/L	1	0.0002	0.001	NE	RSK 175	05/07/10 09:37	LAC	



Lab Sample ID: C004742-01 Sampled: 04/29/10 14:50 Received: 04/30/10 13:15

Work Order: C004742

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Project: White Street Landfill MNA

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	Notes
Acetic Acid [64-19-7]	0.083	U	mg/L	1	0.083	0.50	NE	Volatile Fatty Acids	05/05/10 15:55	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	05/05/10 15:55	MEF	
Hexanoic Acid [142-62-1]	0.23	U	mg/L	1	0.23	1.0		Volatile Fatty Acids	05/05/10 15:55	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.16	U	mg/L	1	0.16	0.50		Volatile Fatty Acids	05/05/10 15:55	MEF	
iso-Hexanoic Acid [646-07-1]	0.21	U	mg/L	1	0.21	1.0		Volatile Fatty Acids	05/05/10 15:55	MEF	
iso-Pentanoic Acid [503-74-2]	0.26	U	mg/L	1	0.26	0.50		Volatile Fatty Acids	05/05/10 15:55	MEF	
Lactic Acid [50-21-5]	0.44	U	mg/L	1	0.44	0.50	NE	Volatile Fatty Acids	05/05/10 15:55	MEF	
Pentanoic Acid [109-52-4]	0.27	U	mg/L	1	0.27	0.50		Volatile Fatty Acids	05/05/10 15:55	MEF	
Propionic Acid [79-09-4]	0.18	U	mg/L	1	0.18	0.50	NE	Volatile Fatty Acids	05/05/10 15:55	MEF	
Pyruvic Acid [127-17-3]	0.14	U	mg/L	1	0.14	0.50	NE	Volatile Fatty Acids	05/05/10 15:55	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	: Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	59	1	50.0	117 %	<i>80</i> -	-124	0E05002	Volatile Fatty Acids	05/05/10 15:55	MEF	



 Description:
 4103-II1
 Lab Sample ID: C004742-02
 Received: 04/30/10 13:15

 Matrix:
 Ground Water
 Sampled: 04/29/10 10:15
 Work Order: C004742

Project: White Street Landfill MNA Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag ∪	<u>Units</u>	<u>DF</u>	MDL 0.091	MRL 1.0	NC SWSL	Method EPA 8260B	Analyzed 05/07/10 10:47	By JKG	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^ 1,1,1-Trichloroethane [71-55-6] ^	0.091	U	ug/L ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	υ	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 10:47	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
1,1-Dichloroethane [75-34-3] ^	2.1	j	ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 10:47	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	Ú	ug/L	1	0.15	1.0	5	EPA 8260B	05/07/10 10:47	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	υ	ug/L	1	0.48	1.0	13	EPA 8260B	05/07/10 10:47	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 10:47	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
1,4-Dichlorobenzene [106-46-7] ^	4.4		ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 10:47	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 10:47	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 10:47	JKG	
Acetone [67-64-1] ^	2.9	J	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 10:47	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 10:47	JKG	
Benzene [71-43-2] ^	0.72	J	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 10:47	JKG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 10:47	ЖG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 10:47	JKG	
Bromomethane [74-83-9] ^	0.28	υ	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 10:47	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 10:47	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Chlorobenzene [108-90-7] ^	1.4	3	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 10:47	JKG	
Chloroethane [75-00-3] ^	0.74		ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 10:47	JKG JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083 0.050	1.0	5 1	EPA 8260B EPA 8260B	05/07/10 10:47 05/07/10 10:47	JKG	
Chloromethane [74-87-3] ^	0.050 3.1	U J	ug/L	1	0.030	1.0 1.0	5	EPA 8260B	05/07/10 10:47	JKG	
cis-1,2-Dichloroethene [156-59-2] ^ cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 10:47	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 10:47	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	05/07/10 10:47	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 82608	05/07/10 10:47	JKG	
Styrene [100-42-5] ^	0.082	υ	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Tetrachloroethene [127-18-4] ^	0.099	U	ug/L	1	0.099	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 10:47	ЭKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 10:47	JKG	
Trichloroethene [79-01-6] ^	0.55	J	ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Trichlorofluoromethane [75-69-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 10:47	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 10:47	JKG	
Vinyl chloride [75-01-4] ^	0.49	3	ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 10:47	JKG	



Lab Sample ID: C004742-02 **Sampled:** 04/29/10 10:15 **Received:** 04/30/10 13:15 **Work Order:** C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

^ - ENCO Car	y certified anai	yte [NC .	591]
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Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DE	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/07/10 10:47	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec L	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-12	22	0E06030	EPA 8260B	05/07/10 10:47	JKG	
Dibromofluoromethane	46	1	50.0	92 %	68-11	17	0E06030	EPA 8260B	05/07/10 10:47	JKG	
Toluene-d8	46	1	50.0	<i>92 %</i>	69-11	10	0E06030	EPA 8260B	05/07/10 10:47	JKG	

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] ^	390	D	mg/L	10	0.18	50	NE	EPA 300.0	05/04/10 15:53	PEV	
Nitrate as N [14797-55-8] ^	0.021	U	mg/L	1	0.021	0.10	10000	EPA 353.2	05/04/10 13:38	PEV	
Sulfate as SO4 [14808-79-8] ^	14	J	mg/L	1	0.12	5.0	250000	EPA 300.0	05/04/10 15:33	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1000	SM18 4500-S D	05/03/10 12:04	C	
Total Alkalinity [471-34-1] ^	350	D	mg/L	3.98	32	60	NE	EPA 310.2	05/04/10 11:17	PEV	_

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DE	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	23		mg/L	1	0.32	1.0	NE	SM18 5310B	05/12/10 17:58	RSA	

Dissolved Gases by GC

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DE</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	544	D	mg/L	10	7.80	25.0	NE	RSK 175	05/07/10 09:44	LAC	
Ethane [74-84-0]	0.0007	J	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:09	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:09	LAC	
Methane [74-82-8]	0.007		mg/L	1	0.0002	0.001	NE	RSK 175	05/05/10 12:09	LAC	



 Description:
 4103-II1
 Lab Sample ID: C004742-02
 Received: 04/30/10 13:15

 Matrix:
 Ground Water
 Sampled: 04/29/10 10:15
 Work Order: C004742

Matrix:Ground WaterSampled: 04/29/10 10:15Project:White Street Landfill MNASampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	0.083	U	mg/L	1	0.083	0.50	NE	Volatile Fatty Acids	05/05/10 16:57	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	05/05/10 16:57	MEF	
Hexanoic Acid [142-62-1]	0.23	U	mg/L	1	0.23	1.0		Volatile Fatty Acids	05/05/10 16:57	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.16	U	mg/L	1	0.16	0.50		Volatile Fatty Acids	05/05/10 16:57	MEF	
iso-Hexanoic Acid [646-07-1]	0.21	U	mg/L	1	0.21	1.0		Volatile Fatty Acids	05/05/10 16:57	MEF	
iso-Pentanoic Acid [503-74-2]	0.26	U	mg/L	1	0.26	0.50		Volatile Fatty Acids	05/05/10 16:57	MEF	
Lactic Acid [50-21-5]	0.44	U	mg/L	1	0.44	0.50	NE	Volatile Fatty Acids	05/05/10 16:57	MEF	
Pentanoic Acid [109-52-4]	0.27	U	mg/L	1	0.27	0.50		Volatile Fatty Acids	05/05/10 16:57	MEF	
Propionic Acid [79-09-4]	0.18	U	mg/L	1	0.18	0.50	NE	Volatile Fatty Acids	05/05/10 16:57	MEF	
Pyruvic Acid [127-17-3]	0.14	U	mg/L	1	0.14	0.50	NE	Volatile Fatty Acids	05/05/10 16:57	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	59	1	50.0	118 %	80-	124	0E05002	Volatile Fatty Acids	05/05/10 16:57	MEF	



 Description:
 4103-II2
 Lab Sample ID: C004742-03
 Received: 04/30/10 13:15

 Matrix:
 Ground Water
 Sampled: 04/29/10 09:00
 Work Order: C004742

Project: White Street Landfill MNA Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/07/10 11:16	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 11:16	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
1,1-Dichloroethane [75-34-3] ^	9.2		ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 11:16	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/07/10 11:16	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/07/10 11:16	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 11:16	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.46	J	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 11:16	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 11:16	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 11:16	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 11:16	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 11:16	JKG	
Benzene [71-43-2] ^	0.79	j	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 11:16	JKG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 11:16	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 11:16	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 11:16	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Chlorobenzene [108-90-7] ^	0.48	J	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 11:16	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 11:16	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/07/10 11:16	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	12		ug/L	1	0.075	1.0	5	EPA 8260B	05/07/10 11:16	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 11:16	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 11:16	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Iodomethane [74-88-4] ^	0.52	υ	ug/L	1	0.52	5.0	10	EPA 8260B	05/07/10 11:16	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Styrene [100-42-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Tetrachloroethene [127-18-4] ^	3.2		ug/L	1	0.099	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 11:16	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 11:16	JKG	
Trichloroethene [79-01-6] ^	2.6		ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Trichlorofluoromethane [75-69-4] ^	1.7		ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 11:16	JKG	
Vinyl acetate [108-05-4] ^	0.98	υ	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 11:16	JKG	
Vinyl chloride [75-01-4] ^	3.3		ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 11:16	JKG	



Description: 4103-II2

Lab Sample ID: C004742-03

Received: 04/30/10 13:15

Matrix: Ground Water

Sampled: 04/29/10 09:00

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.22	Flag U	Units ug/L	DF 1	MDL 0.22	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 05/07/10 11:16	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-1.	22	0E06030	EPA 8260B	05/07/10 11:16	JKG	
Dibromofluoromethane	46	1	50.0	93 %	68-1.	17	0E06030	EPA 8260B	05/07/10 11:16	JKG	
Toluene-d8	46	1	50.0	92 %	69-1.	10	0E06030	EPA 8260B	05/07/10 11:16	JKG	



Lab Sample ID: C004742-03 Received: 04/30/10 13:15 Description: 4103-II2 Matrix: Ground Water Sampled: 04/29/10 09:00

Project: White Street Landfill MNA Sampled By: Gary Simcox Work Order: C004742

Classical Chemistry Parameters

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	12		mg/L	1	0.018	5.0	NE	EPA 300.0	05/04/10 16:14	PEV	
Nitrate as N [14797-55-8] ^	0.021	บ	mg/L	1	0.021	0.10	10000	EPA 353.2	05/04/10 13:38	PEV	
Sulfate as SO4 [14808-79-8] ^	19	J	mg/L	1	0.12	5.0	250000	EPA 300.0	05/04/10 16:14	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1000	SM18 4500-S D	05/03/10 12:04	JOC	
Total Alkalinity [471-34-1] ^	330	D	mg/L	2	16	30	NE	EPA 310.2	05/04/10 10:37	PEV	



Description: 4103-II2

Lab Sample ID: C004742-03

Received: 04/30/10 13:15

Matrix: Ground Water

Sampled: 04/29/10 09:00

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	<u>Flaq</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	2.0		mg/L	1	0.32	1.0	NE	SM18 5310B	05/12/10 17:58	RSA	



 Description:
 4103-II2
 Lab Sample ID: C004742-03
 Received: 04/30/10 13:15

 Matrix:
 Ground Water
 Sampled: 04/29/10 09:00
 Work Order: C004742

Matrix:Ground WaterSampled: 04/29/10 09:00Project:White Street Landfill MNASampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	By	<u>Notes</u>
Carbon dioxide [124-38-9]	164		mg/L	1	0.780	2.50	NE	RSK 175	05/05/10 12:13	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:13	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:13	LAC	
Methane [74-82-8]	1.47		mg/L	1	0.0002	0.001	NE	RSK 175	05/05/10 12:13	LAC	



Lab Sample ID: C004742-03 **Sampled:** 04/29/10 09:00

Sampled By: Gary Simcox

Received: 04/30/10 13:15

Project: White Street Landfill MNA

Work Order: C004742

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	0.083	U	mg/L	1	0.083	0.50	NÉ	Volatile Fatty Acids	05/05/10 18:00	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	05/05/10 18:00	MEF	
Hexanoic Acid [142-62-1]	0.23	U	mg/L	1	0.23	1.0		Volatile Fatty Acids	05/05/10 18:00	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.16	U	mg/L	1	0.16	0.50		Volatile Fatty Acids	05/05/10 18:00	MEF	
iso-Hexanoic Acid [646-07-1]	0.21	U	mg/L	1	0.21	1.0		Volatile Fatty Acids	05/05/10 18:00	MEF	
iso-Pentanoic Acid [503-74-2]	0.26	U	mg/L	1	0.26	0.50		Volatile Fatty Acids	05/05/10 18:00	MEF	
Lactic Acid [50-21-5]	0.44	U	mg/L	1	0.44	0.50	NE	Volatile Fatty Acids	05/05/10 18:00	MEF	
Pentanoic Acid [109-52-4]	0.27	U	mg/L	1	0.27	0.50		Volatile Fatty Acids	05/05/10 18:00	MEF	
Propionic Acid [79-09-4]	0.18	U	mg/L	1	0.18	0.50	NE	Volatile Fatty Acids	05/05/10 18:00	MEF	
Pyruvic Acid [127-17-3]	0.14	U	mg/L	1	0.14	0.50	NE	Volatile Fatty Acids	05/05/10 18:00	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	60	1	50.0	119 %	80-	124	0E05002	Volatile Fatty Acids	05/05/10 18:00	MEF	



 Description:
 4103-II2B
 Lab Sample ID: C004742-04
 Received: 04/30/10 13:15

 Matrix:
 Ground Water
 Sampled: 04/29/10 16:30
 Work Order: C004742

Project: White Street Landfill MNA Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/07/10 11:45	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 11:45	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
1,1-Dichloroethane [75-34-3] ^	10		ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 11:45	JKG JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	U	ug/L	1	0.15	1.0	5 1	EPA 8260B EPA 8260B	05/07/10 11:45 05/07/10 11:45	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15 0.48	1.0 1.0	13	EPA 8260B	05/07/10 11:45	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^ 1,2-Dibromoethane [106-93-4] ^	0.48 0.42	U U	ug/L ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 11:45	JKG	
1,2-Dichloroethane [107-06-2] ^	0.032	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 11:45	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 11:45	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 11:45	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 11:45	JKG	
Acrylonitrile [107-13-1] ^	2.1	υ	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 11:45	JKG	
Benzene [71-43-2] ^	1.1		ug/L	1	0.050	1.0	1	EPA 82608	05/07/10 11:45	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 11:45	JKG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 11:45	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 11:45	JKG	
Carbon disulfide [75-15-0] ^	1.6	J	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 11:45	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
Chlorobenzene [108-90-7] ^	0.52	J	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 11:45	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 11:45	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/07/10 11:45	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	16		ug/L	1	0.075	1.0	5	EPA 8260B	05/07/10 11:45	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 11:45	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 11:45	JKG JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1 10	EPA 82608 EPA 82608	05/07/10 11:45	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52 0.070	5.0 1.0	1	EPA 8260B	05/07/10 11:45 05/07/10 11:45	JKG	
Methylene chloride [75-09-2] ^	0.070 0.082	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
Styrene [100-42-5] ^	2.2	U	ug/L ug/L	1	0.099	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
Tetrachloroethene [127-18-4] ^ Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 11:45	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 11:45	JKG	
Trichloroethene [79-01-6] ^	2.5		ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
Trichlorofluoromethane [75-69-4] ^	1.6		ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 11:45	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 11:45	JKG	
Vinyl chloride [75-01-4] ^	3.5		ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 11:45	JKG	



Lab Sample ID: C004742-04 **Sampled:** 04/29/10 16:30

Received: 04/30/10 13:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C004742

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.22	Flag U	<u>Units</u> ug/L	DF	MDL 0.22	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 05/07/10 11:45	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Li	imits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-12.	2	0E06030	EPA 8260B	05/07/10 11:45	JKG	
Dibromofluoromethane	46	1	50.0	92 %	68-11.	7	0E06030	EPA 8260B	05/07/10 11:45	JKG	
Toluene-d8	46	1	50.0	92 %	69-110	0	0E06030	EPA 8260B	05/07/10 11:45	JKG	



Received: 04/30/10 13:15 Lab Sample ID: C004742-04 Description: 4103-II2B Sampled: 04/29/10 16:30 Matrix: Ground Water

Project: White Street Landfill MNA Sampled By: Gary Simcox Work Order: C004742

Classical Chemistry Parameters

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	11		mg/L	1	0.018	5.0	NE	EPA 300.0	05/04/10 16:35	PEV	
Nitrate as N [14797-55-8] ^	0.021	U	mg/L	1	0.021	0.10	10000	EPA 353.2	05/04/10 13:38	PEV	
Sulfate as SO4 [14808-79-8] ^	21	J	mg/L	1	0.12	5.0	250000	EPA 300.0	05/04/10 16:35	PEV	
Sulfide [18496-25-8] ^	0.031	υ	mg/L	1	0.031	0.10	1000	SM18 4500-S D	05/03/10 12:04	30 C	
Total Alkalinity [471-34-1] ^	200	D	mg/L	2	16	30	NE	EPA 310.2	05/04/10 10:38	PEV	



Description: 4103-II2B

Lab Sample ID: C004742-04 **Sampled:** 04/29/10 16:30

Received: 04/30/10 13:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C004742

Classical Chemistry Parameter	
	_
Classical Chemistry Paramete	

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	2.1		mg/L	1	0.32	1.0	NE	SM18 5310B	05/12/10 17:58	RSA	

Dissolved Gases by GC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DE	MDL	MRL	NC SWSL	Method	Analyzed	<u>By</u>	<u>Notes</u>
Carbon dioxide [124-38-9]	354	D	mg/L	10	7.80	25.0	NE	RSK 175	05/06/10 09:06	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:16	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:16	LAC	
Methane [74-82-8]	1.33		mg/L	1	0.0002	0.001	NE	RSK 175	05/05/10 12:16	LAC	



 Description:
 4103-II2B
 Lab Sample ID: C004742-04
 Received: 04/30/10 13:15

Matrix: Ground WaterSampled: 04/29/10 16:30Work Order: C004742

Project: White Street Landfill MNA Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	0.083	υ	mg/L	1	0.083	0.50	NE	Volatile Fatty Acids	05/05/10 19:02	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	05/05/10 19:02	MEF	
Hexanoic Acid [142-62-1]	0.23	U	mg/L	1	0.23	1.0		Volatile Fatty Acids	05/05/10 19:02	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.16	U	mg/L	1	0.16	0.50		Volatile Fatty Acids	05/05/10 19:02	MEF	
iso-Hexanoic Acid [646-07-1]	0.21	U	mg/L	1	0.21	1.0		Volatile Fatty Acids	05/05/10 19:02	MEF	
iso-Pentanoic Acid [503-74-2]	0.26	U	mg/L	1	0.26	0.50		Volatile Fatty Acids	05/05/10 19:02	MEF	
Lactic Acid [50-21-5]	0.44	U	mg/L	1	0.44	0.50	NE	Volatile Fatty Acids	05/05/10 19:02	MEF	
Pentanoic Acid [109-52-4]	0.27	U	mg/L	1	0.27	0.50		Volatile Fatty Acids	05/05/10 19:02	MEF	
Propionic Acid [79-09-4]	0.18	U	mg/L	1	0.18	0.50	NE	Volatile Fatty Acids	05/05/10 19:02	MEF	
Pyruvic Acid [127-17-3]	0.14	U	mg/L	1	0.14	0.50	NE	Volatile Fatty Acids	05/05/10 19:02	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	59	1	50.0	117 %	80-	124	0E05002	Volatile Fatty Acids	05/05/10 19:02	MEF	



 Description:
 4103-II7
 Lab Sample ID: C004742-05
 Received: 04/30/10 13:15

 Matrix:
 Ground Water
 Sampled: 04/29/10 12:50
 Work Order: C004742

Project: White Street Landfill MNA Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	By	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/07/10 12:14	JKG JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 82608	05/07/10 12:14	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 12:14		
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
1,1-Dichloroethane [75-34-3] ^	1.3	J	ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 12:14	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/07/10 12:14	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/07/10 12:14	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 12:14	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.43	3	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 12:14	ЭKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 12:14	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 12:14	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 12:14	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 12:14	JKG	
Benzene [71-43-2] ^	0.68	j	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 12:14	JKG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 12:14	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 12:14	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 12:14	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
Chlorobenzene [108-90-7] ^	0.069	U	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 12:14	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 12:14	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/07/10 12:14	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	3.5	j	ug/L	1	0.075	1.0	5	EPA 8260B	05/07/10 12:14	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
Dibromochloromethane [124-48-1] ^	0.067	υ	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 12:14	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 12:14	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	05/07/10 12:14	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/07/10 12:14	ЭKG	
Styrene [100-42-5] ^	0.082	υ	ug/L	1	0.082	1.0	1	EPA 82608	05/07/10 12:14	JKG	
Tetrachloroethene [127-18-4] ^	0.40	j	ug/L	1	0.099	1.0	1	EPA 82608	05/07/10 12:14	JKG	
Toluene [108-88-3] ^	0.59	J	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 12:14	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 12:14	JKG	
Trichloroethene [79-01-6] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
Trichlorofluoromethane [75-69-4] ^	0.15	υ	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 12:14	JKG	
Vinyl chloride [75-01-4] ^	0.75	j	ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 12:14	JKG	
amar emorine [12-01-4]	5.75	,	ug/L	•	0.003	1.0	•	27.02000	VO/ / - V A E - 4 .		



Lab Sample ID: C004742-05 **Sampled:** 04/29/10 12:50

Received: 04/30/10 13:15

Sampled By: Gary Simcox

Work Order: C004742

Project: White Street Landfill MNA

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.22	Flag U	<u>Units</u> ug/L	DF	MDL 0.22	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 05/07/10 12:14	By JKG	Notes
Surrogates	Results	DF	Spike Lvi	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	45	1	50.0	90 %	51-1.	22	0E06030	EPA 8260B	05/07/10 12:14	JKG	
Dibromofluoromethane	48	1	50.0	97 %	68-1.	17	0E06030	EPA 8260B	05/07/10 12:14	ЭKG	
Toluene-d8	47	1	50.0	94 %	69-1.	10	0E06030	EPA 8260B	05/07/10 12:14	JKG	



Description: 4103-II7

Lab Sample ID: C004742-05

Received: 04/30/10 13:15

Matrix: Ground Water

Sampled: 04/29/10 12:50

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	18		mg/L	1	0.018	5.0	NE	EPA 300.0	05/04/10 17:37	PEV	
Nitrate as N [14797-55-8] ^	0.021	U	mg/L	1	0.021	0.10	10000	EPA 353.2	05/04/10 13:38	PEV	
Sulfate as SO4 [14808-79-8] ^	14	j	mg/L	1	0.12	5.0	250000	EPA 300.0	05/04/10 17:37	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1000	SM18 4500-S D	05/03/10 12:04	300	
Total Alkalinity [471-34-1] ^	70		mg/L	1	8.0	15	NE	EPA 310.2	05/04/10 10:39	PEV	



Description: 4103-II7

Lab Sample ID: C004742-05 **Sampled:** 04/29/10 12:50

Received: 04/30/10 13:15

Matrix: Ground Water

Sampled By: Gary Simcox

Work Order: C004742

Classical Chemistry Parameters

Project: White Street Landfill MNA

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	By	Notes
Total Organic Carbon [ECL-0165] ^	3.5		ma/L	1	0.32	1.0	NE	SM18 5310B	05/12/10 17:58	RSA	

Dissolved Gases by GC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	430	D	mg/L	10	7.80	25.0	NE	RSK 175	05/07/10 09:57	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:20	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:20	LAC	
Methane [74-82-8]	0.029		mg/L	1	0.0002	0.001	NE	RSK 175	05/05/10 12:20	LAC	



Lab Sample ID: C004742-05 **Sampled:** 04/29/10 12:50

Received: 04/30/10 13:15

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	By	<u>Notes</u>
Acetic Acid [64-19-7]	0.083	U	mg/L	1	0.083	0.50	NE	Volatile Fatty Acids	05/05/10 20:05	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	05/05/10 20:05	MEF	
Hexanoic Acid [142-62-1]	0.23	U	mg/L	1	0.23	1.0		Volatile Fatty Acids	05/05/10 20:05	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.16	U	mg/L	1	0.16	0.50		Volatile Fatty Acids	05/05/10 20:05	MEF	
iso-Hexanoic Acid [646-07-1]	0.21	U	mg/L	1	0.21	1.0		Volatile Fatty Acids	05/05/10 20:05	MEF	
iso-Pentanoic Acid [503-74-2]	0.26	U	mg/L	1	0.26	0.50		Volatile Fatty Acids	05/05/10 20:05	MEF	
Lactic Acid [50-21-5]	0.44	U	mg/L	1	0.44	0.50	NE	Volatile Fatty Acids	05/05/10 20:05	MEF	
Pentanoic Acid [109-52-4]	0.27	U	mg/L	1	0.27	0.50		Volatile Fatty Acids	05/05/10 20:05	MEF	
Propionic Acid [79-09-4]	0.18	U	mg/L	1	0.18	0.50	NE	Volatile Fatty Acids	05/05/10 20:05	MEF	
Pyruvic Acid [127-17-3]	0.14	U	mg/L	1	0.14	0.50	NE	Volatile Fatty Acids	05/05/10 20:05	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	60	1	50.0	120 %	80-	124	0E05002	Volatile Fatty Acids	05/05/10 20:05	MEF	



 Description:
 4103-II7B
 Lab Sample ID: C004742-06
 Received: 04/30/10 13:15

 Matrix:
 Ground Water
 Sampled: 04/29/10 11:30
 Work Order: C004742

Project: White Street Landfill MNA Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/07/10 12:43	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 12:43	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
1,1-Dichloroethane [75-34-3] ^	0.050	U	ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 12:43	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/07/10 12:43	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 12:43	ЭKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/07/10 12:43	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	υ	ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 12:43	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 82608	05/07/10 12:43	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 82608	05/07/10 12:43	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 12:43	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 12:43	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 12:43	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 12:43	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 12:43	JKG	
Benzene [71-43-2] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 12:43	JKG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 12:43	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 12:43	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 12:43	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	υ	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Chlorobenzene [108-90-7] ^	0.069	U	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 12:43	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 12:43	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/07/10 12:43	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.075	U	ug/L	1	0.075	1.0	5	EPA 8260B	05/07/10 12:43	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 12:43	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 12:43	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	05/07/10 12:43	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/07/10 12:43	ЭKG	
Styrene [100-42-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Tetrachloroethene [127-18-4] ^	0.45	J	ug/L	1	0.099	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 12:43	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 12:43	JKG	
Trichloroethene [79-01-6] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Trichlorofluoromethane [75-69-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 12:43	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 12:43	JKG	
Vinyl chloride [75-01-4] ^	0.083	U	ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 12:43	JKG	



Lab Sample ID: C004742-06 **Sampled:** 04/29/10 11:30

Received: 04/30/10 13:15

Sampled By: Gary Simcox

Work Order: C004742

Volatile Organic Compounds by GCMS

Project: White Street Landfill MNA

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.22	<u>Flag</u> U	Units ug/L	DF 1	MDL 0.22	MRL 1.0	NC SWSL 5	Method EPA 8260B	Analyzed 05/07/10 12:43	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	45	1	50.0	90 %	51-1	22	0E06030	EPA 8260B	05/07/10 12:43	JKG	
Dibromofluoromethane	47	1	50.0	94 %	68-1	17	0E06030	EPA 8260B	05/07/10 12:43	JKG	
Toluene-d8	47	1	50.0	94 %	69-1	10	0E06030	EPA 8260B	05/07/10 12:43	JKG	



Lab Sample ID: C004742-06 **Sampled:** 04/29/10 11:30

Received: 04/30/10 13:15

Sampled By: Gary Simcox

Work Order: C004742

Classical Chemistry Parameters

Project: White Street Landfill MNA

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	4.8	J	mg/L	1	0.018	5.0	NE	EPA 300.0	05/04/10 17:57	PEV	
Nitrate as N [14797-55-8] ^	0.23	J	mg/L	1	0.021	0.10	10000	EPA 353.2	05/04/10 13:38	PEV	
Sulfate as SO4 [14808-79-8] ^	100	JD	mg/L	2	0.24	10	250000	EPA 300.0	05/04/10 18:18	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1000	SM18 4500-S D	05/03/10 12:04	JOC	
Total Alkalinity [471-34-1] ^	110		mg/L	1	8.0	15	NE	EPA 310.2	05/04/10 10:42	PEV	



Description: 4103-II7B

Lab Sample ID: C004742-06 **Sampled:** 04/29/10 11:30 Received: 04/30/10 13:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C004742

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	D F	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	2.3		mg/L	1	0.32	1.0	NE	SM18 5310B	05/12/10 17:58	RSA	



Description: 4103-II7B

Lab Sample ID: C004742-06

Received: 04/30/10 13:15

Matrix: Ground Water

Sampled: 04/29/10 11:30 Sampled By: Gary Simcox Work Order: C004742

Project: White Street Landfill MNA

Dissolved Gases by GC

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
Carbon dioxide [124-38-9]	0.780	U	mg/L	1	0.780	2.50	NE	RSK 175	05/05/10 12:24	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:24	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:24	LAC	
Methane [74-82-8]	0.002		mg/L	1	0.0002	0.001	NE	RSK 175	05/05/10 12:24	LAC	



Description: 4103-II7B

Lab Sample ID: C004742-06 **Sampled:** 04/29/10 11:30 Received: 04/30/10 13:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C004742

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	<u>8</u> y	Notes
Acetic Acid [64-19-7]	0.083	U	mg/L	1	0.083	0.50	NE	Volatile Fatty Acids	05/05/10 21:08	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	05/05/10 21:08	MEF	
Hexanoic Acid [142-62-1]	0.23	U	mg/L	1	0.23	1.0		Volatile Fatty Acids	05/05/10 21:08	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.16	ΰ	mg/L	1	0.16	0.50		Volatile Fatty Acids	05/05/10 21:08	MEF	
iso-Hexanoic Acid [646-07-1]	0.21	U	mg/L	1	0.21	1.0		Volatile Fatty Acids	05/05/10 21:08	MEF	
iso-Pentanoic Acid [503-74-2]	0.26	U	mg/L	1	0.26	0.50		Volatile Fatty Acids	05/05/10 21:08	MEF	
Lactic Acid [50-21-5]	0.44	U	mg/L	1	0.44	0.50	NE	Volatile Fatty Acids	05/05/10 21:08	MEF	
Pentanoic Acid [109-52-4]	0.27	U	mg/L	1	0.27	0.50		Volatile Fatty Acids	05/05/10 21:08	MEF	
Propionic Acid [79-09-4]	0.18	U	mg/L	1	0.18	0.50	NE	Volatile Fatty Acids	05/05/10 21:08	MEF	
Pyruvic Acid [127-17-3]	0.14	U	mg/L	1	0.14	0.50	NE	Volatile Fatty Acids	05/05/10 21:08	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	59	1	50.0	117 %	80-	124	0E05002	Volatile Fatty Acids	05/05/10 21:08	MEF	



Project: White Street Landfill MNA

Lab Sample ID: C004742-07 Sampled: 04/29/10 17:45

Sampled By: Gary Simcox

Received: 04/30/10 13:15

Work Order: C004742

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	<u>By</u>	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 13:12	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
1,1-Dichloroethane [75-34-3] ^	5.2		ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/07/10 13:12	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 13:12	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 13:12	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 13:12	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 13:12	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 13:12	JKG	
Benzene [71-43-2] ^	0.050	υ	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 13:12	ЗКG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 13:12	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 13:12	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 13:12	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	υ	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Chiorobenzene [108-90-7] ^	0.069	U	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 13:12	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 13:12	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	11		ug/L	1	0.075	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 13:12	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 13:12	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	05/07/10 13:12	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Styrene [100-42-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 13:12	ЭKG	
Tetrachloroethene [127-18-4] ^	0.099	U	ug/L	1	0.099	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 13:12	JKG	
Trichloroethene [79-01-6] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Trichlorofluoromethane [75-69-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 13:12	JKG	
Vinyl chloride [75-01-4] ^	0.66	j	ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 13:12	JKG	
vinyi cinoride [/3-01-4]	V.00	,	ug/L	•	0.005	1.0	•	_ A 02000	55,57,15 15.12		



Lab Sample ID: C004742-07 **Sampled:** 04/29/10 17:45

Received: 04/30/10 13:15

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/07/10 13:12	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec I	Limits	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-12	22	0E06030	EPA 8260B	05/07/10 13:12	JKG	
Dibromofluoromethane	46	1	50.0	92 %	68-1.	17	0E06030	EPA 8260B	05/07/10 13:12	JKG	
Toluene-d8	46	1	50.0	92 %	69-1.	10	0E06030	EPA 8260B	05/07/10 13:12	JKG	



Lab Sample ID: C004742-07 **Sampled:** 04/29/10 17:45

Received: 04/30/10 13:15 **Work Order:** C004742

Sampled By: Gary Simcox

Project: White Street Landfill MNA

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	By	Notes
Chloride [16887-00-6] ^	12		mg/L	1	0.018	5.0	NE	EPA 300.0	05/04/10 18:39	PEV	
Nitrate as N [14797-55-8] ^	0.12	j	mg/L	1	0.021	0.10	10000	EPA 353.2	05/04/10 13:38	PEV	
Sulfate as SO4 [14808-79-8] ^	27	3	mg/L	1	0.12	5.0	250000	EPA 300.0	05/04/10 18:39	PEV	
Sulfide [18496-25-8] ^	0.031	U	mg/L	1	0.031	0.10	1000	SM18 4500-S D	05/03/10 12:04	3OC	
Total Alkalinity [471-34-1] ^	110	D	mg/L	2	16	30	NE	EPA 310.2	05/04/10 11:17	PEV	

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	4.5		mg/L	1	0.32	1.0	NE	SM18 5310B	05/12/10 17:58	RSA	

Dissolved Gases by GC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>B</u> y	<u>Notes</u>
Carbon dioxide [124-38-9]	295	D	mg/L	10	7.80	25.0	NE	RSK 175	05/06/10 09:14	LAC	
Ethane [74-84-0]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:28	LAC	
Ethene [74-85-1]	0.0004	U	mg/L	1	0.0004	0.002	NE	RSK 175	05/05/10 12:28	LAC	
Methane [74-82-8]	0.006		mg/L	1	0.0002	0.001	NE	RSK 175	05/05/10 12:28	LAC	



Lab Sample ID: C004742-07 **Sampled:** 04/29/10 17:45

Received: 04/30/10 13:15

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>D</u> F	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	Notes
Acetic Acid [64-19-7]	0.083	U	mg/L	1	0.083	0.50	NE	Volatile Fatty Acids	05/05/10 22:10	MEF	
Butyric Acid [107-92-6]	0.16	U	mg/L	1	0.16	0.50	NE	Volatile Fatty Acids	05/05/10 22:10	MEF	
Hexanoic Acid [142-62-1]	0.23	U	mg/L	1	0.23	1.0		Volatile Fatty Acids	05/05/10 22:10	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	0.16	U	mg/L	1	0.16	0.50		Volatile Fatty Acids	05/05/10 22:10	MEF	
iso-Hexanoic Acid [646-07-1]	0.95		mg/L	1	0.21	1.0		Volatile Fatty Acids	05/05/10 22:10	MEF	
iso-Pentanoic Acid [503-74-2]	0.26	U	mg/L	1	0.26	0.50		Volatile Fatty Acids	05/05/10 22:10	MEF	
Lactic Acid [50-21-5]	0.44	U	mg/L	1	0.44	0.50	NE	Volatile Fatty Acids	05/05/10 22:10	MEF	
Pentanoic Acid [109-52-4]	0.27	U	mg/L	1	0.27	0.50		Volatile Fatty Acids	05/05/10 22:10	MEF	
Propionic Acid [79-09-4]	0.18	U	mg/L	1	0.18	0.50	NE	Volatile Fatty Acids	05/05/10 22:10	MEF	
Pyruvic Acid [127-17-3]	0.14	U	mg/L	1	0.14	0.50	NE	Volatile Fatty Acids	05/05/10 22:10	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	59	1	50.0	118 %	80-	124	0E05002	Volatile Fatty Acids	05/05/10 22:10	MEF	



 Description:
 4103-Trip Blank
 Lab Sample ID: C004742-08
 Received: 04/30/10 13:15

 Matrix:
 Water
 Sampled: 04/29/10 09:00
 Work Order: C004742

Project: White Street Landfill MNA Sampled By: ENCO

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	<u>Results</u>	Flag	Units	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/07/10 13:42	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
1,1,2,2-Tetrachioroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/07/10 13:42	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
1,1-Dichloroethane [75-34-3] ^	0.050	U	ug/L	1	0.050	1.0	5	EPA 8260B	05/07/10 13:42	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 82608	05/07/10 13:42	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/07/10 13:42	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/07/10 13:42	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/07/10 13:42	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/07/10 13:42	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/07/10 13:42	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/07/10 13:42	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	05/07/10 13:42	JKG	
Benzene [71-43-2] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
8romochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/07/10 13:42	JKG	
Bromodichloromethane [75-27-4] ^	0.10	υ	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/07/10 13:42	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/07/10 13:42	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	05/07/10 13:42	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Chlorobenzene [108-90-7] ^	0.069	U	ug/L	1	0.069	1.0	3	EPA 8260B	05/07/10 13:42	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/07/10 13:42	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/07/10 13:42	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.075	U	ug/L	1	0.075	1.0	5	EPA 8260B	05/07/10 13:42	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/07/10 13:42	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/07/10 13:42	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	05/07/10 13:42	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Styrene [100-42-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Tetrachloroethene [127-18-4] ^	0.099	U	ug/L	1	0.099	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	u	ug/L	1	0.11	1.0	5	EPA 8260B	05/07/10 13:42	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/07/10 13:42	JKG	
Trichloroethene [79-01-6] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Trichlorofluoromethane [75-69-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/07/10 13:42	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	05/07/10 13:42	JKG	
Vinyl chloride [75-01-4] ^	0.083	U	ug/L	1	0.083	1.0	1	EPA 8260B	05/07/10 13:42	JKG	



Description: 4103-Trip Blank

Lab Sample ID: C004742-08

Received: 04/30/10 13:15

Matrix: Water

Sampled: 04/29/10 09:00

Work Order: C004742

Project: White Street Landfill MNA

Sampled By: ENCO

Volatile Organic Compounds by GCMS

Analyte [CAS Number] Xylenes (Total) [1330-20-7] ^	Results 0.22	Flag V	Units ug/L	<u>DF</u> 1	MDL 0.22	MRL 1.0	NC SWSL	Method EPA 8260B	Analyzed 05/07/10 13:42	By JKG	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec L	imits.	Batch	Method	Analyzed	Ву	Notes
4-Bromofluorobenzene	46	1	50.0	92 %	51-12	?2	0E06030	EPA 8260B	05/07/10 13:42	JKG	
Dibromofluoromethane	47	1	50.0	94 %	68-11	17	0E06030	EPA 8260B	05/07/10 13:42	JKG	
Toluene-d8	47	1	50.0	93 %	6 9 -11	10	0E06030	EPA 8260B	05/07/10 13:42	JKG	



QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 0E06030 - EPA 5030B_MS

Blank (0E06030-BLK1)

Prepared: 05/06/2010 15:38 Analyzed: 05/07/2010 03:10

Blank (0E06030-BLK1)					Prepared: 05/06/20	10 15:36 Alia	iyzeu: 05/07/	
Analyte	Result .	Flag	MRL	Units	Spike Source Level Result	%REC	%REC Limits	RPD Limit Notes
1,1,1,2-Tetrachloroethane	0.091	U	1.0	ug/L	-			
1,1,1-Trichloroethane	0.15	U	1.0	ug/L				
1,1,2,2-Tetrachloroethane	0.085	U	1.0	ug/L				
1,1,2-Trichloroethane	0.068	U	1.0	ug/L				
1,1-Dichloroethane	0.050	U	1.0	ug/L				
1,1-Dichloroethene	0.15	U	1.0	ug/L				
1,2,3-Trichloropropane	0.15	U	1.0	ug/L				
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L				
1,2-Dibromoethane	0.42	U	1.0	ug/L				
1,2-Dichlorobenzene	0.052	U	1.0	ug/L				
1,2-Dichloroethane	0.082	U	1.0	ug/L				
1,2-Dichloropropane	0.098	U	1.0	ug/L				
1,4-Dichlorobenzene	0.10	U	1.0	ug/L				
2-Butanone	1.0	U	5.0	ug/L				
2-Hexanone	0.69	U	5.0	ug/L				
4-Methyl-2-pentanone	1.1	U	5.0	ug/L				
Acetone	1.5	U	5.0	ug/L				
Acrylonitrile	2.1	U	10	ug/L				
Benzene	0.050	U	1.0	ug/L				
Bromochloromethane	0.11	U	1.0	ug/L				
Bromodichloromethane	0.10	U	1.0	ug/L				
Bromoform	0.20	U	1.0	ug/L				
Bromomethane	0.28	U	1.0	ug/L				
Carbon disulfide	0.54	U	5.0	ug/L				
Carbon tetrachloride	0.082	U	1.0	ug/L				
Chlorobenzene	0.069	U	1.0	ug/L				
Chloroethane	0.18	U	1.0	ug/L				
Chloroform	0.083	U	1.0	ug/L				
Chloromethane	0.050	U	1.0	ug/L				
cis-1,2-Dichloroethene	0.075	U	1.0	ug/L				
cis-1,3-Dichloropropene	0.073	U	1.0	ug/L				
Dibromochloromethane	0.067	U	1.0	ug/L				
Dibromomethane	0.13	U	1.0	ug/L				
Ethylbenzene	0.10	U	1.0	ug/L				
Iodomethane	0.52	U	5.0	ug/L				
Methylene chloride	0.070	U	1.0	ug/L				
Styrene	0.082	U	1.0	ug/L				
Tetrachloroethene	0.099	U	1.0	ug/L				
Toluene	0.053	U	1.0	ug/L				
trans-1,2-Dichloroethene	0.11	U	1.0	ug/L				
trans-1,3-Dichloropropene	0.080	U	1.0	ug/L				
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L				
Trichloroethene	0.13	U	1.0	ug/L				
Trichlorofluoromethane	0.15	U	1.0	ug/L				
Vinyl acetate	0.98	U	5.0	ug/L				
Vinyl chloride	0.083	U	1.0	ug/L				
Xylenes (Total)	0.22	U	1.0	ug/L				
Surrogate: 1,2-Dichloroethane-d4	42			ug/L	50.0	84	57-131	



QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 0E06030 - EPA 5030B_MS

Blank (0E06030-BLK1) Continued

Prepared: 05/06/2010 15:38 Analyzed: 05/07/2010 03:10

Analyte 1	Result / Flag	VRL Units	Spike Level	Source + Result %REC	Werec Limits RPD	RPD Limit Notes
Surrogate: 4-Bromofluorobenzene	45	υg/L	50.0	90	51-122	
Surrogate: Dibromofluoromethane	42	ug/L	<i>50.0</i>	<i>84</i>	68-117	
Surrogate: Toluene-d8	46	ug/L	50.0	91	<i>69-110</i>	

LCS (0E06030-BS1)

Prepared: 05/06/2010 15:38 Analyzed: 05/07/2010 03:38

Analyte 4	Result Flag	MRE	Units	Spike Leyel	Source Result %REC	%REC RPD Limits Notes
1,1-Dichloroethene	17	1.0	ug/L	20.0	87	75-133
Benzene	18	1.0	ug/L	20.0	92	81-134
Chlorobenzene	18	1.0	ug/L	20.0	91	83-117
Toluene	19	1.0	ug/L	20.0	96	71-118
Trichloroethene	17	1.0	ug/L	20.0	86	75-115

Matrix Spike (0E06030-MS1)

Prepared: 05/06/2010 15:38 Analyzed: 05/07/2010 04:07

Source: C005033-09

Analyte	Result Fla	g MRL	Units		Source Result	%REC	%REC RPD Limit Motes
1,1-Dichloroethene	18	1.0	ug/L	20.0	0.15 U	91	75-133
Benzene	19	1.0	ug/L	20.0	0.050 U	93	81-134
Chlorobenzene	18	1.0	ug/L	20.0	0.069 U	89	83-117
Toluene	19	1.0	ug/L	20.0	0.053 U	97	71-118
Trichloroethene	18	1.0	ug/L	20.0	0.13 U	88	75-115

Matrix Spike Dup (0E06030-MSD1)

Source: C005033-09

Prepared: 05/06/2010 15:38 Analyzed: 05/07/2010 04:35

Analyte	Result A	MRL	Units	Spile Level	Source Result	%REC	%REC Limits	RPD	, RPD Limit	Notes
1,1-Dichloroethene	17	1.0	ug/L	20.0	0.15 U	85	75-133	7	20	
Benzene	18	1.0	ug/L	20.0	0.050 U	90	81-134	3	17	
Chlorobenzene	18	1.0	ug/L	20.0	0.069 U	90	83-117	2	16	
Toluene	19	1.0	ug/L	20.0	0.053 U	94	71-118	3	17	
Trichloroethene	17	1.0	ug/L	20.0	0.13 U	87	75-115	1	18	

Classical Chemistry Parameters - Quality Control

Batch 0E03009 - NO PREP

Blank (0E03009-BLK1)

Prepared &	Analyzed:	05/03/2010	12:04
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Analyte	Result	Flag	MRL	Units	Spile Source SAREC RPD Level Result 96REC Limits RPD Limit Notes
Sulfide	0.031	U	0.10	mg/L	

LCS (0E03009-BS1)

Prepared & Analyzed: 05/03/2010 12:04

Analyte	Result Flag	MRL	Units	Spike 1	Source Result %REC	%REC Limits	RPD RPD Limit Notes	
Sulfide	0.39	0.10	mg/L	0.401	97	80-120		



OUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 0E03009 - NO PREP

Matrix Spike (0E03009-MS1)

Source: C003795-04

Prepared & Analyzed: 05/03/2010 12:04

	Result Flag	MRL	Units			%REC		RPD Limit Notes
Sulfide	0.30	0.10	mg/L	0.401	-0.016	78	80-120	QM-07

Matrix Spike Dup (0E03009-MSD1)

Source: C003795-04

Prepared & Analyzed: 05/03/2010 12:04

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	%REC LIMITS	RPD "	RPD Limit	Notes
Sulfide	0.29	0.10	mg/L	0.401	-0.016	75	80-120	3	25	QM-07

Batch 0E04002 - NO PREP

Blank (0E04002-BLK1) Prepared: 05/04/2010 07:43 Analyzed: 05/04/2010 08:40

		Filter 18-1	170 - 170 - 130 -		Cila Cila		WARE THE	a pph	1000000
Analyte To State S	Result	Flag	MRL	I britis	Spike <u>Sour</u> ce . Lével Résult	96REC	Umits RP) Limit	Notes :
And the color Att of color all section displaces.		130	CHAPTER STREET OF U	164 200 200 200 200		v 1 (3 44)			0.00
Chloride	0.018	Ü	5.0	mg/L					
S. Ifete e- 504	0.12		- 0	-a!					
Sulfate as SO4	0.12	U	5.0	mq/L					

LCS (0E04002-BS1)

Prepared: 05/04/2010 07:43 Analyzed: 05/04/2010 09:21

Parties and the same of the sa	Result : Flag	MRL	· Units	Solle Level	Source Result ************************************	YAKE Links - APD	PPD TO THE PERSON OF THE PERSO
Chloride	50	5.0	mg/L	50.0	99	90-110	
Sulfate as SO4	49	5.0	mg/L	50.0	98	90-110	

Matrix Spike (0E04002-MS1)

Prepared: 05/04/2010 07:43 Analyzed: 05/04/2010 13:49

Source: C004742-01

Analyte	Result Flag	MRL	Units	"Spile Level	Source Result	%REC	%REC Limits	RPD Limit Notes
Chloride	53	5.0	mg/L	50.0	3.9	98	80-120	
Sulfate as SO4	50	5.0	mg/L	50.0	0.12 U	100	80-120	

Matrix Spike Dup (0E04002-MSD1)

Prepared: 05/04/2010 07:43 Analyzed: 05/04/2010 14:10

Source: C004742-01

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD .	RPD Limit	Notes -
Chloride	53	5.0	mg/L	50.0	3.9	98	80-120	0.6	15	
Sulfate as SO4	49	5.0	mg/L	50.0	0.12 U	99	80-120	0.8	15	

Batch 0E04010 - NO PREP

Blank (0E04010-BLK1) Prepared: 05/04/2010 09:39 Analyzed: 05/04/2010 10:31

Analyte	Result		MRL	Units	Spike Source %REC RPD RPD Level Result %REC Limits RPD Limit Notes
Total Alkalinity	8.0	U	15	mg/L	

LCS (0E04010-BS1)

Prepared: 05/04/2010 09:39 Analyzed: 05/04/2010 10:32



Classical Chemistry Parameters - Quality Control

Batch 0E04010 - NO PREP

LCS (0E04010-BS1) Continued

Prepared: 05/04/2010 09:39 Analyzed: 05/04/2010 10:32

Arialyte	Result Flag	MŘĹ	. Units	Solice Level	Pariett Water limits PDD Limit Notes	
Total Alkalinity	99	15	mg/L	100	99 80-120	

Matrix Spike (0E04010-MS1)

Source: C004901-02

Prepared: 05/04/2010 09:39 Analyzed: 05/04/2010 10:45

Analyte	Résult Plag	MRE	Units	Spike Level	Source Result	%REC	%gec Lunus =R	RPD Notes
Total Alkalinity	100	15	mg/L	100	0.4	104	80-120	

Matrix Spike Dup (0E04010-MSD1)

Prepared: 05/04/2010 09:39 Analyzed: 05/04/2010 10:46

Source: C004901-02

Analyte	Result Flag	MRL	Units	Spile Leye	Source Result	%REC	. %REC . Umits .	RPD	RPD ± Umit	Nation Control
Total Alkalinity	100	15	mg/L	100	0.4	102	80-120	2	25	

QUALITY CONTROL

Dissolved Gases by GC - Quality Control

Batch 0E05008 - NO PREP ANALYTIX

Blank (0E05008-BLK1)

Prepared: 05/05/2010 10:11 Analyzed: 05/05/2010 11:39

AND THE STATE OF T	Result	Flag	MRL	Units	Spiss Source SAREC RPD Limit Notes
Carbon dioxide	0.780	U	2.50	mg/L	
Ethane	0.0004	U	0.002	mg/L	
Ethene	0.0004	U	0.002	mg/L	
Methane	0.0002	U	0.001	mg/L	

LCS (0E05008-BS1)

Prepared: 05/05/2010 10:11 Analyzed: 05/05/2010 11:43

Analyte	Result Flag	MRL	Units	Spike Level	Source Result %REC	%REC RPD RPD Notes	
Carbon dioxide	29.0	2.50	mg/L	26.3	110	71-119	
Ethane	0.157	0.002	mg/L	0.179	88	75-123	
Ethene	0.150	0.002	mg/L	0.167	90	72-131	
Methane	0.0858	0.001	mg/L	0.0958	90	74-116	

Matrix Spike (0E05008-MS1)

Prepared: 05/05/2010 10:11 Analyzed: 05/05/2010 11:52

Source: C004742-01

Analy in 187	Result Flag	MRL	Units	Spike Lever	Source Result	%REC-	%REC Limits	RPD Umit Notes
Carbon dioxide	157	2.50	mg/L	26.3	111	173	71-119	QM-02
Ethane	0.168	0.002	mg/L	0.179	0.0004 U	94	75-123	
Ethene	0.163	0.002	mg/L	0.167	0.0004 U	98	72-131	
Methane	0.0897	0.001	mg/L	0.0958	0.0002 U	94	74-116	

Matrix Spike Dup (0E05008-MSD1)

Source: C004742-01

Prepared: 05/05/2010 10:11 Analyzed: 05/05/2010 11:56



Dissolved Gases by GC - Quality Control

Batch 0E05008 - NO PREP ANALYTIX

Matrix Spike Dup (0E05008-MSD1) Continued

Source: C004742-01

Prepared: 05/05/2010 10:11 Analyzed: 05/05/2010 11:56

Arbyte Williams	Result Fra	MRL	-Units	Solke Level	Source Result	%REC	96REC Limits	RPD.		Notes
Carbon dioxide	155	2.50	mg/L	26.3	111	167	71-119	1	10	QM-02
Ethane	0.172	0.002	mg/L	0.179	0.0004 U	96	75-123	2	14	
Ethene	0.163	0.002	mg/L	0.167	0.0004 U	97	72-131	0.3	12	
Methane	0.0913	0.001	mg/L	0.0958	0.0002 U	95	74-116	2	18	

Volatile Fatty Acids by HPLC - Quality Control

Batch 0E05002 - NO PREP ANALYTIX

Blank (0E05002-BLK1)

Prepared: 05/05/2010 08:58 Analyzed: 05/05/2010 11:44

THE CONTRACTOR SPECIAL	が大いる機能	便被规则			Spike	Source		%REC		RPD	
Analyte	Result	Flag	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Acetic Acid	0.083	U	0.50	mg/L		.	•				
Butyric Acid	0.16	U	0.50	mg/L							
Hexanoic Acid	0.23	U	1.0	mg/L							
HIBA (2-Hydroxyisobutyric Acid)	0.16	U	0.50	mg/L							
iso-Hexanoic Acid	0.21	U	1.0	mg/L							
iso-Pentanoic Acid	0.26	U	0.50	mg/L							
Lactic Acid	0.44	U	0.50	mg/L							
Pentanoic Acid	0.27	U	0.50	mg/L							
Propionic Acid	0.18	U	0.50	mg/L							
Pyruvic Acid	0.14	U	0.50	mg/L							
Surrogate: Trimethylacetic acid	62			mg/L	50.0		123	80-124			

LCS (0E05002-BS1)

Prepared: 05/05/2010 08:58 Analyzed: 05/05/2010 12:47

the state of the s				"Spile"	Source	%REC	J.RPD
Analyte	Result Flag	MRL	Units	Level	Result %REC	Limits RPD	Limit Notes
Acetic Acid	19	0.50	mg/L	20.0	93	73-125	
Butyric Acid	24	0.50	mg/L	20.0	119	80-120	
Hexanoic Acid	22	1.0	mg/L	20.0	108	78-120	
HIBA (2-Hydroxyisobutyric Acid)	18	0.50	mg/L	20.0	91	80-120	
iso-Hexanoic Acid	18	1.0	mg/L	20.0	91	80-120	
iso-Pentanoic Acid	20	0.50	mg/L	20.0	99	78-120	
Lactic Acid	17	0.50	mg/L	20.0	83	56-154	
Pentanoic Acid	19	0.50	mg/L	20.0	97	77-120	
Propionic Acid	21	0.50	mg/L	20.0	104	80-120	
Pyruvic Acid	15	0.50	mg/L	20.0	73	37-142	
Surrogate: Trimethylacetic acid	57		mg/L	50.0	113	80-124	

Matrix Spike (0E05002-MS1)

Prepared: 05/05/2010 08:58 Analyzed: 05/05/2010 13:50

Source: C004742-01

Analyte	Result Flag	MRL -	Units	Spike Level	Source Result	%REC	%REC Umits	RPD Limit Notes
Acetic Acid	19	0.50	mg/L	20.0	0.083 U	93	73-125	
Butyric Acid	23	0.50	mg/L	20.0	0.16 U	113	80-120	
Hexanoic Acid	21	1.0	mg/L	20.0	0.23 U	104	78-120	
HIBA (2-Hydroxyisobutyric Acid)	19	0.50	mg/L	20.0	0.16 U	93	80-120	



Volatile Fatty Acids by HPLC - Quality Control

Batch 0E05002 - NO PREP ANALYTIX

Matrix Spike (0E05002-MS1) Continued

Source: C004742-01

Prepared: 05/05/2010 08:58 Analyzed: 05/05/2010 13:50

Analyto	Result Fla	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD LIMIT Notes
iso-Hexanoic Acid	17	1.0	mg/L	20.0	0.21 U	86	80-120	-
iso-Pentanoic Acid	20	0.50	mg/L	20.0	0.26 U	102	78-120	
Lactic Acid	16	0.50	mg/L	20.0	0.44 U	79	56-154	
Pentanoic Acid	21	0.50	mg/L	20.0	0.27 U	106	77-120	
Propionic Acid	21	0.50	mg/L	20.0	0.18 U	105	80-120	
Pyruvic Acid	15	0.50	mg/L	20.0	0.14 U	73	37-142	
Surrogate: Trimethylacetic acid	56		mg/L	50.0		113	80-124	

Matrix Spike Dup (0E05002-MSD1)

Source: C004742-01

Prepared: 05/05/2010 08:58 Analyzed: 05/05/2010 14:52

Analyte	Regult I	ia MRL	Units	Spike	Source Result	%REC	%REC Limits	RPD	RPD Limit	
Acetic Acid	19	0.50	mg/L	20.0	0.083 U	94	73-125	0.7	10	
Butyric Acid	22	0.50	mg/L	20.0	0.16 U	112	80-120	0.9	10	
Hexanoic Acid	20	1.0	mg/L	20.0	0.23 U	100	78-120	3	34	
HIBA (2-Hydroxyisobutyric Acid)	18	0.50	mg/L	20.0	0.16 U	92	80-120	0.09	15	
iso-Hexanoic Acid	18	1.0	mg/L	20.0	0.21 U	90	80-120	5	15	
iso-Pentanoic Acid	21	0.50	mg/L	20.0	0.26 U	104	78-120	2	15	
Lactic Acid	15	0.50	mg/L	20.0	0.44 U	76	56-154	4	19	
Pentanoic Acid	21	0.50	mg/L	20.0	0.27 U	103	77-120	3	10	
Propionic Acid	21	0.50	mg/L	20.0	0.18 U	106	80-120	0.7	10	
Pyruvic Acid	15	0.50	mg/L	20.0	0.14 U	74	37-142	0.4	10	
Surrogate: Trimethylacetic acid	56		mg/L	50.0		112	80-124			

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 0E12003 - NO PREP

Blank (0E12003-BLK1)

Prepared: 05/12/2010 10:55 Analyzed: 05/12/2010 17:58

Analyte	Result	Flag	MRL	Units	Spike Source %REC RPD Limit Notes
Total Omanic Carbon	0.32	U	1.0	ma/L	

LCS (0E12003-BS1)

Prepared: 05/12/2010 10:55 Analyzed: 05/12/2010 17:58

Analyte	Result Flag	MRL	Units	Spike Level	Source Result %REC	%REC Limits	RPD Limit Notes
Total Organic Carbon	40	1.0	mg/L	41.6	97	85-115	

Matrix Spike (0E12003-MS1)

Prepared: 05/12/2010 10:55 Analyzed: 05/12/2010 17:58

Source: C004742-01

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD Limit Notes
Total Organic Carbon	41	1.0	mg/L	40.0	0.32	101	85-115	

Matrix Spike Dup (0E12003-MSD1)

Prepared: 05/12/2010 10:55 Analyzed: 05/12/2010 17:58



Classical Chemistry Parameters - Quality Control

Batch 0E12003 - NO PREP

Matrix Spike Dup (0E12003-MSD1) Continued

Prepared: 05/12/2010 10:55 Analyzed: 05/12/2010 17:58

Source: C004742-01

Analyte	Result Fit		Units	Splice Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	37	1.0	mg/L	40.0	0.32	92	85-115	9	21	



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
Е	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.



ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD 11771 Contrat Part Dr. Anni Factories Park Court, Suite 271 1172 A Winnessents inclination of Dislaction Tr. 12754 Ministerior Cap. NO. 27511 1407 1825-18345 (1919) 1825-1835 (1919) 1825-1835 (1919) 1825-1835 (1919) 1825-1835 (1919) 1825-18365 (1919) 1825-1835 (1919)

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S&ME, Inc. (SM004) ANAINS 18 Old Battleground Rd. Greensboro, NC 27410 Tel (336) 288-7180 "(336) Samperts) Name, Attachen Pent; GARX SIMPLEX 514 II-1 II-2 II-2 II-3	CHOCAL		ACCION NUMBER							Designation	Anahraes				
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Sampler(s) Name, Athera CARN Stampler(s) Signatura H-14 H-1 H-2 H-7 H-7 H-9 H-9 Trip Blar	<u> </u>	(336) 288-8180	Report Connect Ware	Ware							O + 9	_			Expedited
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MW-14	Sample 10 (Feld identification)	Curestoon Distri	Collection	Comp./ Grab	Mains (see codes)	Confiances						-		-	Sample Comments
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11-2B 11-7 11-7B 11-9 Trip Blar		010	4/28/10	9	CW.	13	×	×	×	×	×	×	×	-	
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11-78 11-9 Trip Blar		0521	4/23/10	9	GW	13	×	×	×	×	×	×	×		
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"An Procedure WWW/Greenstein A.C. Outmen (actual in commental)

"An Procedure WWW/Greenstein



Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 1 of 8 Lab Proj #: P1005052

Report Date: 05/17/10

Client Proj Name: White Street LF

Client Proj #: 1584-98-081

Lab	ога	tory	Res	ults
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Total pages in data package:

Lab Camala #	Client Sample ID
Lab Sample #	Client Sample in
P1005052-01	MW-14
P1005052-02	H-1
P1005052-03	II-2
P1005052-04	II-2B
P1005052-05	II-7
P1005052-06	II-7B
P1005052-07	11-9

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By:	Xlibbie Hallo	<u> Date:</u>	5-17-10	
Project Manager:	Debbie Hallo			

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.

Please call customer service at (412)826-5245 or email customerservice@microseeps.com.

Case Narrative: The samples were received approximately 1 week into the recommended holding times

Client Name: S & ME
Contact: Connel Ware
Address: 3718 Old Battleground Road
Greensboro, NC 27410

Page: Page 2 of 8
Lab Proj #: P1005052
Report Date: 05/17/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description MW-14	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1005052-01		Sampled Date/Time 29 Apr. 10 15:25	<u>Received</u> 05 May. 10 14:0	07
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	3.400	0.600	nM	AM20GAX	5/13/10	sl

Client Name: S & ME Contact: Connel Ware Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 3 of 8 Lab Proj #: P1005052 Report Date: 05/17/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-1	<u>Matrix</u> Vapor	Lab Sample P1005052-0	_	Sampled Date/Time 29 Apr. 10 10:25	<u>Received</u> 05 M ay. 10 14:0	07
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	4.100	0.600	пM	AM20GAX	5/13/10	sl

Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 4 of 8
Lab Proj #: P1005052
Report Date: 05/17/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-2	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1005052-03		Sampled Date/Time 29 Apr. 10 9:35	<u>Received</u> 05 May. 10 14:	07
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	4.500	0.600	nMi	AM20GAX	5/13/10	sl

Client Name: S & ME Contact: Connel Ware Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 5 of 8 Lab Proj #: P1005052 Report Date: 05/17/10 Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-2B	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1005052-04		Sampled Date/Time 29 Apr. 10 16:40	<u>Received</u> 05 May. 10 14:0) 7
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	3.800	0.600	nM	AM20GAX	5/13/10	sl

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 6 of 8 Lab Proj #: P1005052

Report Date: 05/17/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-7	<u>Matrix</u> Vapor	Lab Sample : P1005052-05	_	Sampled Date/Time 29 Apr. 10 13:25	<u>Received</u> 05 M ay. 10 14:	07
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	5.800	0.600	nM	AM20GAX	5/13/10	sl

Client Name: S & ME Contact Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 7 of 8
Lab Proj #: P1005052
Report Date: 05/17/10

Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-7B	<u>Matrix</u> Vapor	<u>Lab Sample</u> P1005052-0	_	Sampled Date/Time 29 Apr. 10 12:00	<u>Received</u> 05 Ma y. 10 14:0	07
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	5.000	0.600	nM	AM20GAX	5/13/10	sl

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 8 of 8
Lab Proj #: P1005052
Report Date: 05/17/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-9	<u>Matrix</u> Vapor	<u>Lab Sample</u> P1005052-0		Sampled Date/Time 29 Apr. 10 17:35	<u>Received</u> 05 May. 10 14:	07
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	3.600	0.600	nM	AM20GAX	5/13/10	sl



Microseeps Lab. Proj.

CHAIN - OF - CUSTODY RECORD

Microseeps COC cont. #

Phone: (412) 826-	5245 Mic	roseeps, Ini	c 220	William	ı Pi	tt Wa	ay - Pi	ttsbu	rgh, f	A 15	238		Fax	No. : (412)	826-3433	
Company:		SEME, Inc.							Parar	neters	Reque	sted			Results to): SAM	E Jac
Co. Address :	<u> 37</u>	18 Old Baff	legro-d R	ocal (rensto	110									Atta: C	morel h	Jane
Phone #:	336	288-7180	Fax #: (3%)	288-8	IC 27411 1980	0	2								<u> </u>		
Proj. Manager :	<u></u> ε	onnel Ware				,	dres	7				}					
Proj. Name/Number:	Whi	le Sheet fall	hil- 1584.	<u>-98-01</u>	51 (MAV	A)	1/2								Invoice to	· Sav	<u>e</u>
Sampler's signature :		In hi		_	Cooler T	emp.	Deschuel										
Sample ID.		Sample Description	Sample Type Water Vapor Solid	Date	Time	3	7								F	Remarks :	
MW-14		Gas Vial	X	4/29/10	1525	1	X										
<u> </u>		ıı.		u	1025	1	X										
T-2		11	X	И	0935	1	X										
TT -2B		11	X	"	1640	4	X										
7-7		11	X	11	1325	1	X										
II - 7B		11	X	11	1200	1	X										
II -9		11		"	1735	1	X									· · · · · · · · · · · · · · · · · · ·	
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Relinquished by	<u>-</u> 4		HE Inc	Date : 5/4/10	1530	- 1	eceiv	ved by	V]		Con	npan	y :	21	Date :	Time:
Relinquished by :		Company	<i>,</i> : ′	Date :	Time		ecei	ved by	,, ,,,,			Con	npan	ıy:	- +	Date:	Time :
Relinquished by :		Company	<i>i</i> :	Date :	Time	R	ecei	ved by	<i>i</i> :		_	Con	npan	ıy:		Date :	Time :

WHITE COPY: Accompany Samples

YELLOW COPY : Laboratory File

PINK COPY : Submitter

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



Wednesday, August 18, 2010

S&ME, Inc. (SM004)

Attn: Connel Ware

3718 Old Battleground Rd.

Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill MNA

ENCO Workorder: C009062

Dear Connel Ware,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, August 4, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

Thuck Sunt



SAMPLE SUMMARY/LABORATORY CHRONICLE

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	08/30/10	08/09/10 11:05	8/10/2010 02:25
EPA 310.2	08/16/10	08/06/10 07:21	8/6/2010 08:27
EPA 353.2	08/30/10	08/10/10 08:38	8/10/2010 10:02
EPA 8260B	08/16/10	08/05/10 12:59	8/6/2010 16:52
RSK-175	08/16/10	08/11/10 11:42	8/11/2010 13:39
5M18 4500-S D	08/09/10	08/06/10 11:41	8/6/2010 11:51
SM18 5310B		08/09/10 12:16	
VGC-13	08/16/10	08/11/10 10:43	8/12/2010 13:02

Client ID: 4103-II1	Lab ID:	C009062-01RE1 Sampled: 08	/02/10 15:15 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	08/30/10	08/09/10 11:05	8/10/2010 02: 44
RSK-175	08/16/10	08/11/10 11:42	8/11/2010 14:08

lient ID; - 4103-112	在一个一个有关的数据的更好的。		08/03/10 10:10 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	08/31/10	08/09/10 11:05	8/10/2010 03:02
EPA 310.2	08/17/10	08/06/10 07:21	8/6/2010 08:28
EPA 353.2	08/31/10	08/10/10 08:38	8/10/2010 10:02
EPA 8260B	08/17/10	08/05/10 12:59	8/6/2010 17:22
RSK-175	08/17/10	08/11/10 11:42	8/11/2010 13:45
SM18 4500-S D	08/10/10	08/06/10 11:41	8/6/2010 11:51
SM18 5310B		08/09/10 12:16	
VGC-13	08/17/10	08/11/10 10:43	8/12/2010 14:05

llent ID: 4103-1128			03/10 08:30 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	08/31/10	08/09/10 11:05	8/10/2010 03:21
EPA 353.2	08/31/10	08/10/10 08:38	8/10/2010 10:02
EPA 8260B	08/17/10	08/05/10 12:59	8/6/2010 17:50
RSK-175	08/17/10	08/11/10 11:42	8/11/2010 13:49
SM18 4500-S D	08/10/10	08/06/10 11:41	8/6/2010 11:51
SM18 5310B		08/09/10 12:16	
VGC-13	08/17/10	08/11/10 10:43	8/12/2010 15:07

Client ID: 4103-II2	B Lab ID	: C009062-03RE1 Sampled: 08/03	8/10 08:30 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 310.2	08/17/10	08/06/10 07:21	8/6/2010 09:17
RSK-175	08/17/10	08/11/10 11:42	8/11/2010 14:12



ient ID: 4103-117	Lab ID:	7	7/10 15:10 Received: .08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	08/31/10	08/09/10 11:05	8/10/2010 03:40
EPA 310.2	08/17/10	08/06/10 07:21	8/6/2010 08:32
EPA 353.2	08/31/10	08/10/10 08:38	8/10/2010 10:02
EPA 8260B	08/17/10	08/05/10 12:59	8/6/2010 18:20
RSK-175	08/17/10	08/11/10 11:42	8/11/2010 13:53
SM18 4500-S D	08/10/10	08/06/10 11:41	8/6/2010 11:51
SM18 5310B		08/09/10 12:16	
VGC-13	08/17/10	08/11/10 10:43	8/12/2010 16:10

Client ID: 4103	-117 Lab ID: (C009062-04RE1 Sampled: 08/03	3/10 15:10 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
RSK-175	08/17/10	08/11/10 11:42	8/11/2010 14:15

lient ID: 4103-1178	and the second second	Lab ID: C009062-05	Sampled:	08/03/10 13:30 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date	Time(s)	Analysis Date/Time(s)
EPA 300.0	08/31/10	08/09/10	11:05	8/10/2010 04:36
EPA 310.2	08/17/10	08/06/10	07:21	8/6/2010 08:32
EPA 353.2	08/31/10	08/10/10	08:38	8/10/2010 10:02
EPA 8260B	08/17/10	08/05/10	12:59	8/6/2010 18:49
RSK-175	08/17/10	08/11/10	11:42	8/11/2010 13:57
SM18 4500-S D	08/10/10	08/06/10	11:41	8/6/2010 11:51
SM18 5310B		08/09/10	12:16	
VGC-13	08/17/10	08/11/10	10:43	8/12/2010 17:13

Client 1D: 4103-II	7B Lab ID	: C009062-05RE1 Sampled: 08/0	3/10 13:30 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	08/31/10	08/09/10 11:05	8/10/2010 04:54

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	08/31/10	08/09/10 11:05	8/10/2010 05:13
EPA 310.2	08/17/10	08/06/10 07:21	8/6/2010 08:33
EPA 353.2	08/31/10	08/10/10 08:38	8/10/2010 10:02
EPA 8260B	08/17/10	08/05/10 12:59	8/6/2010 19:18
RSK-175	08/17/10	08/11/10 11:42	8/11/2010 14:00
SM18 4500-S D	08/10/10	08/06/10 11:41	8/6/2010 11:51
SM18 5310B		08/09/10 12:16	
VGC-13	08/17/10	08/11/10 10:43	8/12/2010 18:15

Client ID: 4103-119	Lab II	D: C009062-06RE1 Sampled: 08/03	/10 11:45 Received: 08/04/10 11:	15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
RSK-175	08/17/10	08/11/10 11:42	8/11/2010 14:34	



Client ID: 4103-Trip	Blank Lab	ID: C009062-07 Sampled: 08	/02/10 15:15 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	08/16/10	08/09/10 10:25	8/9/2010 18:20

Client ID: 4103-MW14	Lab ID: C00	9062-08 Sampled: 08/0	4/10 09:00 Received: 08/04/10 11:15
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	09/01/10	08/09/10 11:05	8/10/2010 05:32
EPA 310.2	08/18/10	08/06/10 07:21	8/6/2010 08:34
EPA 353.2	09/01/10	08/10/10 08:38	8/10/2010 10:02
EPA 8260B	08/18/10	08/09/10 10:25	8/9/2010 18:50
RSK-175	08/18/10	08/11/10 11:42	8/11/2010 14:04
SM18 4500-S D	08/11/10	08/06/10 11:41	8/6/2010 11:51
SM18 5310B		08/09/10 12:16	
VGC-13	08/18/10	08/11/10 10:43	8/12/2010 19:18
			• •



NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Benzene	1.4		1	0.20	1.0	1	ug/L	EPA 8260B	
Chloroethane	1.5	J	1	0.30	1.0	10	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	4.9	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Methane	213		1	0.2	1	NE	ug/L	RSK-175	
Nitrate as N	62	j	1	25	100	10000	ug/L	EPA 353.2	
Sulfate as SO4	12000	J	1	120	5000	250000	ug/L	EPA 300.0	
Total Alkalinity	580000	D	5	40000	75000	NE	ug/L	EPA 310.2	
Total Organic Carbon	34000	_	1	320	1000	NE	ug/L	SM18 5310B	
Trichloroethene	0.62	J	1	0.38	1.0	1	ug/L	EPA 8260B	
Vinyl chloride	1.5	-	1	0.30	1.0	1	ug/L	EPA 8260B	
lant ID: 4103-111	-Proposition	1 (1 de la 1 d		lab ID:	C009062-01	RÉ1	and the state of t		. 17 - GENEDALE General States of
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	829000	D	10	7800	25000	NE	ug/L	RSK-175	• • • • •
Chloride	410000	D	10	180	50000	NE	ug/L	EPA 300.0	
ent ID: 4103-112			9, 3 TS Anno	Lab ID:	C009062-02		To State of the		
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Benzene	0.88		1	0.20	1.0	1	ug/L	EPA 8260B	
Carbon dioxide	175000	•	1	780	2500	NE	ug/L	RSK-175	
Chloride	12000		1	18	5000	NE	ug/L	EPA 300.0	
cis-1,2-Dichloroethene	20		1	0.36	1.0	5	ug/L	EPA 8260B	
Methane	1300		1	0.2	1	NE	ug/L	RSK-175	
Nitrate as N	29	j	1	25	100	10000	ug/L	EPA 353.2	
Sulfate as SO4	21000	j	1	120	5000	250000	ug/L	EPA 300.0	
Fotal Alkalinity	460000	D	5	40000	75000	NE	ug/L	EPA 310.2	
Fotal Organic Carbon	1300		1	320	1000	NE	ug/L	SM18 5310B	
Trichloroethene	4.1		1	0.38	1.0	1	ug/L	EPA 8260B	
/inyl chloride	4.8		1	0.30	1.0	1	ug/L	EPA 8260B	
erit 7D; 4103-1128		71255	TALL.	Lab ID:	C009062-03	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			. Same t
unalyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Benzene	0.98		1	0.20	1.0	1	ug/L	EPA 8260B	
Chloride	11000	•	1	18	5000	NE	ug/L	EPA 300.0	
is-1,2-Dichloroethene	15		1	0.36	1.0	5	ug/L	EPA 8260B	
1ethane	692		1	0.2	1	NE	ug/L	RSK-175	
iulfate as SO4	21000	j	1	120	5000	250000	ug/L	EPA 300.0	
otal Organic Carbon	2400	•	1	320	1000	NE	ug/L	SM18 5310B	
Frichloroethene	2.8		1	0.38	1.0	1	ug/L	EPA 8260B	
/inyl chloride	3.4		1	0.30	1.0	1	ug/L	EPA 8260B	
ent ID: 4103-TI2B			1.000 cm	Lab ID:	C009062-03	EL			
ınalyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	341000		10	7800	25000	NE	ug/L	RSK-175	
otal Alkalinity	310000	D	2	16000	30000	NE	ug/L	EPA 310.2	
Otal Aikamilty									



Client ID: 4103-117		ATT		lab ID;	C009062-04		(表現)	F 12 13 15 15 15 15 15 15 15 15 15 15 15 15 15	等。其 类的
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Chloride	16000		1	18	5000	NE	ug/L	EPA 300.0	
cis-1,2-Dichloroethene	0.71	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Methane	10		1	0.2	1	NE	ug/L	RSK-175	
Nitrate as N	130	j	1	25	100	10000	ug/L	EPA 353.2	
Sulfate as SO4	12000	j	1	120	5000	250000	ug/L	EPA 300.0	
Total Alkalinity	51000		1	8000	15000	NE	ug/L	EPA 310.2	
Total Organic Carbon	2800		1	320	1000	NE	ug/L	SM18 5310B	
lient ID: 4103-117	· · · · · · · · · · · · · · · · · · ·	2 / 74 / 2 / 3 / 3 / 3		lab ID:	. C009062-04I	ŘE1			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	409000	D	10	7800	25000	NE	ug/L	RSK-175	
Hent ID: 4103-1178			200	Lab ID:	. C009062-05				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Chloride	4800	 J	1	18	5000	NE NE	ug/L	EPA 300.0	
Methane	3		1	0.2	1	NE	ug/L	RSK-175	
Nitrate as N	140	J	1	25	100	10000	ug/L	EPA 353.2	
Total Alkalinity	100000		1	8000	15000	NE	ug/L	EPA 310.2	
Total Organic Carbon	2300		1	320	1000	NE	ug/L	SM18 5310B	
iéne (D): 14103-1178		A-7545		Lab 10;	C009062-05i	REL TECT	1.6年(107)	THE THE	E WY
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Sulfate as SO4	100000	JD	2	240	10000	250000	ug/L	EPA 300.0	
Lair 10: 1 4103-119		1		Lab ID:	C009062-06				
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Chloride	11000		1	18	5000	NE	ug/L	EPA 300.0	
Chloroethane	0.46	J	1	0.30	1.0	10	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	20		1	0.36	1.0	5	ug/L	EPA 8260B	
Methane	30		1	0.2	1	NE	ug/L	RSK-175	
Nitrate as N	130	J	1	25	100	10000	ug/L	EPA 353.2	
Sulfate as SO4	15000	j	1	120	5000	250000	ug/L	EPA 300.0	
Total Alkalinity	320000	D	2	16000	30000	NE	ug/L	EPA 310.2	
Total Organic Carbon	3000		1	320	1000	NE	ug/L	SM18 5310B	
Vinyl chloride	2.6		1	0.30	1.0	1	ug/L	EPA 8260B	
lent (D: - : 4103-119			h dist	Lab ID:	: C009062-06	ei 🔆			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon dioxide	307000	D	10	7800	25000	NE	ug/L	RSK-175	
ient ID: 4103-MW14		ร์ Canada		Lab ID;	C009062-08	2-12-2-1-2-15 2-12-2-1-2-15	Table 18 T	7,28,2500	. Auditing
TAUJ PITTAT	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
		_				NE		RSK-175	
Analyte	126000		1	780	2500	NE	ug/L	K3K-1/3	
Analyte Carbon dioxide		J	1 1	780 18	5000	NE NE	ug/L ug/L	EPA 300.0	
Analyte Carbon dioxide Chloride	126000 3700	j							
Analyte Carbon dioxide Chloride Sulfate as SO4 Total Alkalinity	126000		1	18	5000	NE	ug/L	EPA 300.0	



ANALYTICAL RESULTS

Description: 4103-Π1

Lab Sample ID: C009062-01

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/02/10 15:15

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 16:52	JKG	
Benzene [71-43-2] ^	1.4		ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 16:52	JKG	
Chloroethane [75-00-3] ^	1.5	J	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 16:52	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	4.9	J	ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 16:52	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 16:52	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/06/10 16:52	ЗКG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/06/10 16:52	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 16:52	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 16:52	JKG	
Trichloroethene [79-01-6] ^	0.62	J	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 16:52	JKG	
Vinyl chloride [75-01-4] ^	1.5		ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 16:52	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 16:52	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	51	1	50.0	102 %	57-	131	0H05029	EPA 8260B	08/06/10 16:52	JKG	
4-Bromofluorobenzene	49	1	50.0	98 %	51-	122	0H05029	EPA 8260B	08/06/10 16:52	JKG	
Dibromofluoromethane	49	1	50.0	97 %	68-	117	0H05029	EPA 8260B	08/06/10 16:52	ЭKG	
Toluene-d8	47	1	50.0	<i>95 %</i>	6 9	110	0H05029	EPA 8260B	08/06/10 16:52	JKG	



Description: 4103-II1 **Matrix:** Ground Water

Lab Sample ID: C009062-01 **Sampled:** 08/02/10 15:15

Received: 08/04/10 11:15 **Work Order:** C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	410000	D	ug/L	10	180	50000	NE	EPA 300.0	08/10/10 02:44	PEV	
Nitrate as N [14797-55-8] ^	62	j	ug/L	1	25	100	10000	EPA 353.2	08/10/10 10:02	PEV	
Sulfate as SO4 [14808-79-8] ^	12000	J	ug/L	1	120	5000	250000	EPA 300.0	08/10/10 02:25	PEV	
Suifide [18496-25-8] ^	31	U	ug/L	1	31	100	1000	SM18 4500-S D	08/06/10 11:51	JOC	
Total Alkalinity [471-34-1] ^	580000	D	ug/L	5	40000	75000	NE	EPA 310.2	08/06/10 08:27	PEV	



Description: 4103-II1

Lab Sample ID: C009062-01 **Sampled:** 08/02/10 15:15

Received: 08/04/10 11:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	34000		ug/L	1	320	1000	NE	SM18 5310B	08/09/10 13:47	RSA	



Description: 4103-II1 **Matrix:** Ground Water

Lab Sample ID: C009062-01 **Sampled:** 08/02/10 15:15

Received: 08/04/10 11:15 **Work Order:** C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	829000	D	ug/L	10	7800	25000	NE	RSK-175	08/11/10 14:08	LAC	
Ethane [74-84-0]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:39	LAC	
Ethene [74-85-1]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:39	LAC	
Methane [74-82-8]	213		ug/L	1	0.2	1	NE	RSK-175	08/11/10 13:39	LAC	



Description: 4103-II1 **Matrix:** Ground Water

Lab Sample ID: C009062-01 **Sampled:** 08/02/10 15:15

Received: 08/04/10 11:15

Sampled By: Gary Simcox

Work Order: C009062

Volatile Fatty Acids by HPLC

Project: White Street Landfill MNA

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	By	<u>Notes</u>
Acetic Acid [64-19-7]	83	U	ug/L	1	83	500	NE	VGC-13	08/12/10 13:02	MEF	
Butyric Acid [107-92-6]	160	U	ug/L	1	160	500	NE	VGC-13	08/12/10 13:02	MEF	
Hexanoic Acid [142-62-1]	230	U	ug/L	1	230	1000		VGC-13	08/12/10 13:02	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	160	U	ug/L	1	160	500		VGC-13	08/12/10 13:02	MEF	
iso-Hexanoic Acid [646-07-1]	2600		ug/L	1	210	1000		VGC-13	08/12/10 13:02	MEF	
iso-Pentanoic Acid [503-74-2]	260	U	ug/L	1	260	500		VGC-13	08/12/10 13:02	MEF	
Lactic Acid [50-21-5]	440	U	ug/L	1	440	500	NE	VGC-13	08/12/10 13:02	MEF	
Pentanoic Acid [109-52-4]	270	U	ug/L	1	270	500		VGC-13	08/12/10 13:02	MEF	
Propionic Acid [79-09-4]	180	U	ug/L	1	180	500	NE	VGC-13	08/12/10 13:02	MEF	
Pyruvic Acid [127-17-3]	140	U	ug/L	1	140	500	NE	VGC-13	08/12/10 13:02	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	59000	1	50000	117 %	80-	124	0H11010	VGC-13	08/12/10 13:02	MEF	



Description: 4103-II2 **Matrix:** Ground Water

Lab Sample ID: C009062-02 Sampled: 08/03/10 10:10 Received: 08/04/10 11:15

Sampled By: Gary Simcox

Work Order: C009062

Volatile Organic Compounds by GCMS

Project: White Street Landfill MNA

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	By	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 17:22	JKG	
Benzene [71-43-2] ^	0.88	J	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 17:22	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 17:22	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	20		ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 17:22	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 17:22	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/06/10 17:22	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/06/10 17:22	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 17:22	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 17:22	JKG	
Trichloroethene [79-01-6] ^	4.1		ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 17:22	JKG	
Vinyl chloride [75-01-4] ^	4.8		ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 17:22	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 17:22	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	50	1	50.0	100 %	57-	131	0H05029	EPA 8260B	08/06/10 17:22	JKG	
4-Bromofluorobenzene	49	1	50.0	<i>99</i> %	51-	122	0H05029	EPA 8260B	08/06/10 17:22	JKG	
Dibromofluoromethane	48	1	50.0	96 %	68-	117	0H05029	EPA 8260B	08/06/10 17:22	JKG	
Toluene-d8	47	1	50.0	93 %	<i>69</i> -	110	0H05029	EPA 8260B	08/06/10 17:22	JKG	



Lab Sample ID: C009062-02 Received: 08/04/10 11:15 Description: 4103-II2 Sampled: 08/03/10 10:10 Matrix: Ground Water

Sampled By: Gary Simcox Project: White Street Landfill MNA

Work Order: C009062

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>D</u> E	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	12000		ug/L	1	18	5000	NE	EPA 300.0	08/10/10 03:02	PEV	
Nitrate as N [14797-55-8] ^	29	j	ug/L	1	25	100	10000	EPA 353.2	08/10/10 10:02	PEV	
Sulfate as SO4 [14808-79-8] ^	21000	J	ug/L	1	120	5000	250000	EPA 300.0	08/10/10 03:02	PEV	
Sulfide [18496-25-8] ^	31	U	ug/L	1	31	100	1000	SM18 4500-S D	08/06/10 11:51	3OC	
Total Alkalinity [471-34-1] ^	460000	D	ug/L	5	40000	75000	NE	EPA 310.2	08/06/10 08:28	PEV	



Description: 4103-II2

Lab Sample ID: C009062-02 **Sampled:** 08/03/10 10:10

Received: 08/04/10 11:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	1300		ug/L	1	320	1000	NE	SM18 5310B	08/09/10 13:47	RSA	



Description: 4103-II2

Lab Sample ID: C009062-02

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/03/10 10:10

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	175000		ug/L	1	780	2500	NE	RSK-175	08/11/10 13:45	LAC	
Ethane [74-84-0]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:45	LAC	
Ethene [74-85-1]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:45	LAC	
Methane [74-82-8]	1300		ug/L	1	0.2	1	NE	RSK-175	08/11/10 13:45	LAC	



Description: 4103-II2 **Matrix:** Ground Water

Lab Sample ID: C009062-02 **Sampled:** 08/03/10 10:10 Received: 08/04/10 11:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
Acetic Acid [64-19-7]	83	U	ug/L	1	83	500	NE	VGC-13	08/12/10 14:05	MEF	
Butyric Acid [107-92-6]	160	U	ug/L	1	160	500	NE	VGC-13	08/12/10 14:05	MEF	
Hexanoic Acid [142-62-1]	230	U	ug/L	1	230	1000		VGC-13	08/12/10 14:05	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	160	U	ug/L	1	160	500		VGC-13	08/12/10 14:05	MEF	
iso-Hexanoic Acid [646-07-1]	210	U	ug/L	1	210	1000		VGC-13	08/12/10 14:05	MEF	
iso-Pentanoic Acid [503-74-2]	260	U	ug/L	1	260	500		VGC-13	08/12/10 14:05	MEF	
Lactic Acid [50-21-5]	440	U	ug/L	1	440	500	NE	VGC-13	08/12/10 14:05	MEF	
Pentanoic Acid [109-52-4]	270	U	ug/L	1	270	500		VGC-13	08/12/10 14:05	MEF	
Propionic Acid [79-09-4]	180	U	ug/L	1	180	500	NE	VGC-13	08/12/10 14:05	MEF	
Pyruvic Acid [127-17-3]	140	U	ug/L	1	140	500	NE	VGC-13	08/12/10 14:05	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	55000	1	50000	110 %	80-	124	0H11010	VGC-13	08/12/10 14:05	MEF	



Description: 4103-II2B **Matrix:** Ground Water

Lab Sample ID: C009062-03 **Sampled:** 08/03/10 08:30 **Received:** 08/04/10 11:15 **Work Order:** C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
				1	0.27	1.0	1	EPA 8260B	08/06/10 17:50	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1			1				
Benzene [71-43-2] ^	0.98	J	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 17:50	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 17:50	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	15		ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 17:50	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 17:50	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/06/10 17:50	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/06/10 17:50	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 17:50	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 17:50	JKG	
Trichloroethene [79-01-6] ^	2.8		ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 17:50	JKG	
Vinyl chloride [75-01-4] ^	3.4		ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 17:50	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 17:50	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	51	1	50.0	102 %		131	0Н05029	EPA 8260B	08/06/10 17:50	JKG	
·					_					JKG	
4-Bromofluorobenzene	50	1	50.0	100 %		122	0H05029	EPA 8260B	08/06/10 17:50		
Dibromofluoromethane	49	1	50.0	<i>97 %</i>	68-	117	0H05029	EPA 8260B	08/06/10 17:50	ЭКG	
Toluene-d8	47	1	50.0	94 %	<i>69</i> -	110	0H05029	EPA 8260B	08/06/10 17:50	JKG	



Description: 4103-II2B **Matrix:** Ground Water

Lab Sample ID: C009062-03 **Sampled:** 08/03/10 08:30

Received: 08/04/10 11:15

Sampled: 08/03/10 08:30
Sampled By: Gary Simcox

Work Order: C009062

Classical Chemistry Parameters

Project: White Street Landfill MNA

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	11000		ug/L	1	18	5000	NE	EPA 300.0	08/10/10 03:21	PEV	
Nitrate as N [14797-55-8] ^	25	U	ug/L	1	25	100	10000	EPA 353.2	08/10/10 10:02	PEV	
Sulfate as SO4 [14808-79-8] ^	21000	j	ug/L	1	120	5000	250000	EPA 300.0	08/10/10 03:21	PEV	
Sulfide [18496-25-8] ^	31	U	ug/L	1	31	100	1000	SM18 4500-S D	08/06/10 11:51	JOC	
Total Alkalinity [471-34-1] ^	310000	D	ug/L	2	16000	30000	NE	EPA 310.2	08/06/10 09:17	PEV	



Description: 4103-II2B

Lab Sample ID: C009062-03

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/03/10 08:30

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	Notes
Total Organic Carbon [ECL-0165] ^	2400		ua/L	1	320	1000	NE	SM18 5310B	08/09/10 13:47	RSA	



Description: 4103-II2B **Matrix:** Ground Water

Lab Sample ID: C009062-03 **Sampled:** 08/03/10 08:30

Received: 08/04/10 11:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	341000	D	ug/L	10	7800	25000	NE	RSK-175	08/11/10 14:12	LAC	
Ethane [74-84-0]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:49	LAC	
Ethene [74-85-1]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:49	LAC	
Methane [74-82-8]	692		ug/L	1	0.2	1	NE	RSK-175	08/11/10 13:49	LAC	



Description: 4103-II2B

Lab Sample ID: C009062-03

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/03/10 08:30

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	83	U	ug/L	1	83	500	NE	VGC-13	08/12/10 15:07	MEF	
Butyric Acid [107-92-6]	160	U	ug/L	1	160	500	NE	VGC-13	08/12/10 15:07	MEF	
Hexanoic Acid [142-62-1]	230	U	ug/L	1	230	1000		VGC-13	08/12/10 15:07	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	160	U	ug/L	1	160	500		VGC-13	08/12/10 15:07	MEF	
iso-Hexanoic Acid [646-07-1]	210	U	ug/L	1	210	1000		VGC-13	08/12/10 15:07	MEF	
iso-Pentanoic Acid [503-74-2]	260	U	ug/L	1	260	500		VGC-13	08/12/10 15:07	MEF	
Lactic Acid [50-21-5]	440	U	ug/L	1	440	500	NE	VGC-13	08/12/10 15:07	MEF	
Pentanoic Acid [109-52-4]	270	U	ug/L	1	270	500		VGC-13	08/12/10 15:07	MEF	
Propionic Acid [79-09-4]	180	U	ug/L	1	180	500	NE	VGC-13	08/12/10 15:07	MEF	
Pyruvic Acid [127-17-3]	140	U	ug/L	1	140	500	NE	VGC-13	08/12/10 15:07	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	57000	1	50000	114 %	80-	124	0H11010	VGC-13	08/12/10 15:07	MEF	



Description: 4103-II7 **Matrix:** Ground Water

Lab Sample ID: C009062-04 **Sampled:** 08/03/10 15:10

Received: 08/04/10 11:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Volatile Organic Compounds by GCMS

										_	
Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 18:20	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 18:20	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 18:20	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.71	J	ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 18:20	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 18:20	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/06/10 18:20	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/06/10 18:20	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 18:20	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 18:20	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 18:20	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	i	EPA 8260B	08/06/10 18:20	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 18:20	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	52	1	50.0	105 %	<i>57</i> -	131	0H05029	EPA 8260B	08/06/10 18:20	JKG	
4-Bromofluorobenzene	50	1	<i>50.0</i>	<i>99 %</i>	51-	122	0H05029	EPA 8260B	08/06/10 18:20	JKG	
Dibromofluoromethane	50	1	50.0	<i>99 %</i>	68-	117	0H05029	EPA 8260B	08/06/10 18:20	JKG	
Toluene-d8	47	1	50.0	94 %	69-	110	0H05029	EPA 8260B	08/06/10 18:20	JKG	



Description: 4103-II7 Lab Sample ID: C009062-04 Received: 08/04/10 11:15 Sampled: 08/03/10 15:10 Matrix: Ground Water

Sampled By: Gary Simcox Project: White Street Landfill MNA

Work Order: C009062

Classical Chemistry Parameters

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
Chloride [16887-00-6] ^	16000		ug/L	1	18	5000	NE	EPA 300.0	08/10/10 03:40	PEV	
Nitrate as N [14797-55-8] ^	130	j	ug/L	1	25	100	10000	EPA 353.2	08/10/10 10:02	PEV	
Sulfate as SO4 [14808-79-8] ^	12000	J	ug/L	1	120	5000	250000	EPA 300.0	08/10/10 03:40	PEV	
Sulfide [18496-25-8] ^	31	U	ug/L	1	31	100	1000	SM18 4500-S D	08/06/10 11:51)OC	
Total Alkalinity [471-34-1] ^	51000		ug/L	1	8000	15000	NE	EPA 310.2	08/06/10 08:32	PEV	



Lab Sample ID: C009062-04

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/03/10 15:10 Sampled By: Gary Simcox Work Order: C009062

Project: White Street Landfill MNA

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	2800		ug/L	1	320	1000	NE	SM18 5310B	08/09/10 13:47	RSA	



Description: 4103-II7 **Matrix:** Ground Water

Lab Sample ID: C009062-04 **Sampled:** 08/03/10 15:10

Received: 08/04/10 11:15 **Work Order:** C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	Notes
Carbon dioxide [124-38-9]	409000	D	ug/L	10	7800	25000	NE	RSK-175	08/11/10 14:15	LAC	
Ethane [74-84-0]	0.4	υ	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:53	LAC	
Ethene [74-85-1]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:53	LAC	
Methane [74-82-8]	10		ug/L	1	0.2	1	NE	RSK-175	08/11/10 13:53	LAC	



Description: 4103-II7 **Matrix:** Ground Water

Lab Sample ID: C009062-04 **Sampled:** 08/03/10 15:10

Received: 08/04/10 11:15 **Work Order:** C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
Acetic Acid [64-19-7]	83	U	ug/L	1	83	500	NE	VGC-13	08/12/10 16:10	MEF	
Butyric Acid [107-92-6]	160	U	ug/L	1	160	500	NE	VGC-13	08/12/10 16:10	MEF	
Hexanoic Acid [142-62-1]	230	υ	ug/L	1	230	1000		VGC-13	08/12/10 16:10	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	160	U	ug/L	1	160	500		VGC-13	08/12/10 16:10	MEF	
iso-Hexanoic Acid [646-07-1]	210	U	ug/L	1	210	1000		VGC-13	08/12/10 16:10	MEF	
iso-Pentanoic Acid [503-74-2]	260	U	ug/L	1	260	500		VGC-13	08/12/10 16:10	MEF	
Lactic Acid [50-21-5]	440	U	ug/L	1	440	500	NE	VGC-13	08/12/10 16:10	MEF	
Pentanoic Acid [109-52-4]	270	U	ug/L	1	270	500		VGC-13	08/12/10 16:10	MEF	
Propionic Acid [79-09-4]	180	U	ug/L	1	180	500	NE	VGC-13	08/12/10 16:10	MEF	
Pyruvic Acid [127-17-3]	140	U	ug/L	1	140	500	NE	VGC-13	08/12/10 16:10	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	57000	1	50000	113 %	80-	124	0H11010	VGC-13	08/12/10 16:10	MEF	



Lab Sample ID: C009062-05 Received: 08/04/10 11:15 Description: 4103-II7B Matrix: Ground Water Sampled: 08/03/10 13:30

Project: White Street Landfill MNA Sampled By: Gary Simcox Work Order: C009062

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	By	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 18:49	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 18:49	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 18:49	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 18:49	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 18:49	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/06/10 18:49	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/06/10 18:49	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 18:49	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 18:49	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 18:49	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 18:49	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	υ	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 18:49	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	52	1	50.0	105 %	57-	131	0H05029	EPA 8260B	08/06/10 18:49	JKG	
4-Bromofluorobenzene	49	1	50.0	98 %	51-	122	0H05029	EPA 8260B	08/06/10 18:49	JKG	
Dibromofluoromethane	50	1	50.0	100 %	68-	117	0H05029	EPA 8260B	08/06/10 18:49	JKG	
Toluene-d8	47	1	50.0	94 %	69-	110	0H05029	EPA 8260B	08/06/10 18:49	JKG	



Description: 4103-II7B **Matrix:** Ground Water

Lab Sample ID: C009062-05 **Sampled:** 08/03/10 13:30

Received: 08/04/10 11:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Classical Chemistry Parameters

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	By	<u>Notes</u>
Chloride [16887-00-6] ^	4800	J	ug/L	1	18	5000	NE	EPA 300.0	08/10/10 04:36	PEV	
Nitrate as N [14797-55-8] ^	140	J	ug/L	1	25	100	10000	EPA 353.2	08/10/10 10:02	PEV	
Sulfate as SO4 [14808-79-8] ^	100000	JD	ug/L	2	240	10000	250000	EPA 300.0	08/10/10 04:54	PEV	
Sulfide [18496-25-8] ^	31	U	ug/L	1	31	100	1000	SM18 4500-S D	08/06/10 11:51	JOC	
Total Alkalinity [471-34-1] ^	100000		ug/L	1	8000	15000	NE	EPA 310.2	08/06/10 08:32	PEV	



Lab Sample ID: C009062-05

Received: 08/04/10 11:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled: 08/03/10 13:30 Sampled By: Gary Simcox Work Order: C009062

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	By	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	2300		ug/L	1	320	1000	NE	SM18 5310B	08/09/10 13:47	RSA	



Description: 4103-II7B **Matrix:** Ground Water

Lab Sample ID: C009062-05 **Sampled:** 08/03/10 13:30

Received: 08/04/10 11:15

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number]	Results	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	780	U	ug/L	1	780	2500	NE	RSK-175	08/11/10 13:57	LAC	
Ethane [74-84-0]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:57	LAC	
Ethene [74-85-1]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 13:57	LAC	
Methane [74-82-8]	3		ug/L	1	0.2	1	NE	RSK-175	08/11/10 13:57	LAC	



Description: 4103-II7B **Matrix:** Ground Water

Lab Sample ID: C009062-05 **Sampled:** 08/03/10 13:30

Received: 08/04/10 11:15

Sampled: 08/03/10 13:30 Work Order: C009062 Sampled By: Gary Simcox

Project: White Street Landfill MNA

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	<u>MRL</u>	NC SWSL	<u>Method</u>	Analyzed	Ву	<u>Notes</u>
Acetic Acid [64-19-7]	83	U	ug/L	1	83	500	NE	VGC-13	08/12/10 17:13	MEF	
Butyric Acid [107-92-6]	160	U	ug/L	1	160	500	NE	VGC-13	08/12/10 17:13	MEF	
Hexanoic Acid [142-62-1]	230	U	ug/L	1	230	1000		VGC-13	08/12/10 17:13	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	160	U	ug/L	1	160	500		VGC-13	08/12/10 17:13	MEF	
iso-Hexanoic Acid [646-07-1]	210	U	ug/L	1	210	1000		VGC-13	08/12/10 17:13	MEF	
iso-Pentanoic Acid [503-74-2]	260	U	ug/L	1	260	500		VGC-13	08/12/10 17:13	MEF	
Lactic Acid [50-21-5]	440	U	ug/L	1	440	500	NE	VGC-13	08/12/10 17:13	MEF	
Pentanoic Acid [109-52-4]	270	U	ug/L	1	270	500		VGC-13	08/12/10 17:13	MEF	
Propionic Acid [79-09-4]	180	U	ug/L	1	180	500	NE	VGC-13	08/12/10 17:13	MEF	
Pyruvic Acid [127-17-3]	140	U	ug/L	1	140	500	NE	VGC-13	08/12/10 17:13	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	58000	1	50000	116 %	80-	124	0H11010	VGC-13	08/12/10 17:13	MEF	



Received: 08/04/10 11:15 Description: 4103-II9 Lab Sample ID: C009062-06 Sampled: 08/03/10 11:45 Matrix: Ground Water

Project: White Street Landfill MNA Sampled By: Gary Simcox Work Order: C009062

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flaq	<u>Units</u>	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 19:18	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 19:18	JKG	
Chloroethane [75-00-3] ^	0.46	J	ug/L	1	0.30	1.0	10	EPA 8260B	08/06/10 19:18	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	20		ug/L	1	0.36	1.0	5	EPA 8260B	08/06/10 19:18	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/06/10 19:18	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/06/10 19:18	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/06/10 19:18	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/06/10 19:18	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/06/10 19:18	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/06/10 19:18	JKG	
Vinyl chloride [75-01-4] ^	2.6		ug/L	1	0.30	1.0	1	EPA 8260B	08/06/10 19:18	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/06/10 19:18	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	53	1	50.0	105 %	<i>57</i> -	131	0H05029	EPA 8260B	08/06/10 19:18	JKG	
4-Bromofluorobenzene	50	1	50.0	100 %	51-	122	0H05029	EPA 8260B	08/06/10 19:18	ЭKG	
Dibromofluoromethane	50	1	50.0	101 %	68-	117	0H05029	EPA 8260B	08/06/10 19:18	JKG	
Toluene-d8	47	1	50.0	93 %	69-	110	0H05029	EPA 8260B	08/06/10 19:18	JKG	



Lab Sample ID: C009062-06 Received: 08/04/10 11:15 Description: 4103-II9 Matrix: Ground Water Sampled: 08/03/10 11:45

Sampled By: Gary Simcox Project: White Street Landfill MNA

Work Order: C009062

Classical Chemistry Parameters

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	11000		ug/L	1	18	5000	NE	EPA 300.0	08/10/10 05:13	PEV	
Nitrate as N [14797-55-8] ^	130	J	ug/L	1	25	100	10000	EPA 353.2	08/10/10 10:02	PEV	
Sulfate as 504 [14808-79-8] ^	15000	j	ug/L	1	120	5000	250000	EPA 300.0	08/10/10 05:13	PEV	
Sulfide [18496-25-8] ^	31	U	ug/L	1	31	100	1000	SM18 4500-S D	08/06/10 11:51	JOC	
Total Alkalinity [471-34-1] ^	320000	D	ug/L	2	16000	30000	NE	EPA 310.2	08/06/10 08:33	PEV	



Lab Sample ID: C009062-06

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/03/10 11:45

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>D</u> E	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	3000		ug/L	1	320	1000	NE	SM18 5310B	08/09/10 13:47	RSA	



Lab Sample ID: C009062-06

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/03/10 11:45

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	Analyzed	Ву	<u>Notes</u>
Carbon dioxide [124-38-9]	307000	D	ug/L	10	7800	25000	NE	RSK-175	08/11/10 14:34	LAC	
Ethane [74-84-0]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 14:00	LAC	
Ethene [74-85-1]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 14:00	LAC	
Methane [74-82-8]	30		ug/L	1	0.2	1	NE	RSK-175	08/11/10 14:00	LAC	



Lab Sample ID: C009062-06 **Sampled:** 08/03/10 11:45 Received: 08/04/10 11:15

Matrix: Ground Water

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	DF	<u>MDL</u>	MRL	NC SWSL	<u>Method</u>	Analyzed	<u>By</u>	<u>Notes</u>
Acetic Acid [64-19-7]	83	U	ug/L	1	83	500	NE	VGC-13	08/12/10 18:15	MEF	
Butyric Acid [107-92-6]	160	U	ug/L	1	160	500	NE	VGC-13	08/12/10 18:15	MEF	
Hexanoic Acid [142-62-1]	230	U	ug/L	1	230	1000		VGC-13	08/12/10 18:15	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	160	U	ug/L	1	160	500		VGC-13	08/12/10 18:15	MEF	
iso-Hexanoic Acid [646-07-1]	210	U	ug/L	1	210	1000		VGC-13	08/12/10 18:15	MEF	
iso-Pentanoic Acid [503-74-2]	260	U	ug/L	1	260	500		VGC-13	08/12/10 18:15	MEF	
Lactic Acid [50-21-5]	440	U	ug/L	1	440	500	NE	VGC-13	08/12/10 18:15	MEF	
Pentanoic Acid [109-52-4]	270	U	ug/L	1	270	500		VGC-13	08/12/10 18:15	MEF	
Propionic Acid [79-09-4]	180	U	ug/L	1	180	500	NE	VGC-13	08/12/10 18:15	MEF	
Pyruvic Acid [127-17-3]	140	U	ug/L	1	140	500	NE	VGC-13	08/12/10 18:15	MEF	
Surrogates	Results	DF	Spike Lvi	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	58000	1	50000	116 %	80-	124	0H11010	VGC-13	08/12/10 18:15	MEF	



Description: 4103-TripBlank **Matrix:** Water

Lab Sample ID: C009062-07 **Sampled:** 08/02/10 15:15

Received: 08/04/10 11:15

Project: White Street Landfill MNA

Sampled By: ENCO

Work Order: C009062

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	Ву	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/09/10 18:20	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/09/10 18:20	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/09/10 18:20	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	08/09/10 18:20	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/09/10 18:20	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/09/10 18:20	JKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/09/10 18:20	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/09/10 18:20	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/09/10 18:20	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/09/10 18:20	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	08/09/10 18:20	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/09/10 18:20	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	47	1	50.0	94 %	57-	131	0H09012	EPA 8260B	08/09/10 18:20	JKG	
4-Bromofluorobenzene	41	1	50.0	<i>83</i> %	51-	122	0H09012	EPA 8260B	08/09/10 18:20	JKG	
Dibromofluoromethane	45	1	50.0	90 %	68-	117	0H09012	EPA 8260B	08/09/10 18:20	JKG	
Toluene-d8	43	1	50.0	<i>87 %</i>	<i>69</i> -	110	0H09012	EPA 8260B	08/09/10 18:20	JKG	



Description: 4103-MW14 **Matrix:** Ground Water

Lab Sample ID: C009062-08 **Sampled:** 08/04/10 09:00

Received: 08/04/10 11:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Volatile Organic Compounds by GCMS

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/09/10 18:50	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/09/10 18:50	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	08/09/10 18:50	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	08/09/10 18:50	ĴKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	08/09/10 18:50	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	0.48	U	ug/L	1	0.48	2.0	NE	EPA 8260B	08/09/10 18:50	ЭKG	
o-Xylene [95-47-6] ^	0.27	U	ug/L	1	0.27	1.0	NE	EPA 8260B	08/09/10 18:50	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	08/09/10 18:50	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	08/09/10 18:50	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	08/09/10 18:50	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	08/09/10 18:50	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	08/09/10 18:50	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
1,2-Dichloroethane-d4	47	1	50.0	94 %	57-	131	OH09012	EPA 8260B	08/09/10 18:50	JKG	
4-Bromofluorobenzene	40	1	50.0	80 %	51-	122	0H09012	EPA 8260B	08/09/10 18:50	JKG	
Dibromofluoromethane	45	1	50.0	90 %	68-	117	0H09012	EPA 8260B	08/09/10 18:50	JKG	
Toluene-d8	43	1	<i>50.0</i>	<i>85 %</i>	69-	110	0H09012	EPA 8260B	08/09/10 18:50	JKG	



Description: 4103-MW14

Lab Sample ID: C009062-08

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/04/10 09:00

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

Analyte [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	<u>Analyzed</u>	Ву	<u>Notes</u>
Chloride [16887-00-6] ^	3700	J	ug/L	1	18	5000	NE	EPA 300.0	08/10/10 05:32	PEV	
Nitrate as N [14797-55-8] ^	25	U	ug/L	1	25	100	10000	EPA 353.2	08/10/10 10:02	PEV	
Sulfate as SO4 [14808-79-8] ^	1500	j	ug/L	1	120	5000	250000	EPA 300.0	08/10/10 05:32	PEV	
Sulfide [18496-25-8] ^	31	U	ug/L	1	31	100	1000	SM18 4500-S D	08/06/10 11:51	C	
Total Alkalinity [471-34-1] ^	20000		ug/L	1	8000	15000	NE	EPA 310.2	08/06/10 08:34	PEV	



Description: 4103-MW14

Lab Sample ID: C009062-08

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/04/10 09:00

Work Order: C009062

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Classical Chemistry Parameters

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	Method	<u>Analyzed</u>	Ву	<u>Notes</u>
Total Organic Carbon [ECL-0165] ^	400	3	ua/L	1	320	1000	NE	SM18 5310B	08/09/10 13:47	RSA	



Description: 4103-MW14

Lab Sample ID: C009062-08

Received: 08/04/10 11:15

Matrix: Ground Water

Sampled: 08/04/10 09:00 Sampled By: Gary Simcox Work Order: C009062

Project: White Street Landfill MNA

Dissolved Gases by GC

Analyte [CAS Number]	Results	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	Ву	Notes
Carbon dioxide [124-38-9]	126000		ug/L	1	780	2500	NE	RSK-175	08/11/10 14:04	LAC	
Ethane [74-84-0]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 14:04	LAC	
Ethene [74-85-1]	0.4	U	ug/L	1	0.4	2	NE	RSK-175	08/11/10 14:04	LAC	
Methane [74-82-8]	0.2	U	ug/L	1	0.2	1	NE	RSK-175	08/11/10 14:04	LAC	



Description: 4103-MW14 **Matrix:** Ground Water

Lab Sample ID: C009062-08 **Sampled:** 08/04/10 09:00 Received: 08/04/10 11:15

Project: White Street Landfill MNA

Sampled By: Gary Simcox

Work Order: C009062

Volatile Fatty Acids by HPLC

Analyte [CAS Number]	<u>Results</u>	Flag	<u>Units</u>	<u>DF</u>	MDL	MRL	NC SWSL	<u>Method</u>	Analyzed	<u>₿</u> y	Notes
Acetic Acid [64-19-7]	83	U	ug/L	1	83	500	NE	VGC-13	08/12/10 19:18	MEF	
Butyric Acid [107-92-6]	160	U	ug/L	1	160	500	NE	VGC-13	08/12/10 19:18	MEF	
Hexanoic Acid [142-62-1]	230	U	ug/L	1	230	1000		VGC-13	08/12/10 19:18	MEF	
HIBA (2-Hydroxyisobutyric Acid) [594-61-6]	160	U	ug/L	1	160	500		VGC-13	08/12/10 19:18	MEF	
iso-Hexanoic Acid [646-07-1]	210	U	ug/L	1	210	1000		VGC-13	08/12/10 19:18	MEF	
iso-Pentanoic Acid [503-74-2]	260	U	ug/L	1	260	500		VGC-13	08/12/10 19:18	MEF	
Lactic Acid [50-21-5]	440	U	ug/L	1	440	500	NE	VGC-13	08/12/10 19:18	MEF	
Pentanoic Acid [109-52-4]	270	U	ug/L	1	270	500		VGC-13	08/12/10 19:18	MEF	
Propionic Acid [79-09-4]	180	U	ug/L	1	180	500	NE	VGC-13	08/12/10 19:18	MEF	
Pyruvic Acid [127-17-3]	140	U	ug/L	1	140	500	NE	VGC-13	08/12/10 19:18	MEF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec	Limits	Batch	Method	Analyzed	Ву	Notes
Trimethylacetic acid	60000	1	50000	120 %	80-	124	0H11010	VGC-13	08/12/10 19:18	MEF	



Volatile Organic Compounds by GCMS - Quality Control

Batch 0H05029 - EPA 5030B_MS

Blank (0H05029-BLK1)

Prepared: 08/05/2010 12:59 Analyzed: 08/06/2010 11:02

油料的 保护性的 " " " " " " " " " " " " " " " " " " "		Albu d		a the	Spike	Source	2.3種類 :	%REC	11.74	RPD	1
Analyte	Result	Flag	MRL	Units	Spike Level	Result	%REC	Limits	RPD	Limit Noti	
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
Benzene	0.20	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
m,p-Xylenes	0.48	U	2.0	ug/L							
o-Xylene	0.27	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	49			ug/L	50.0		98	57-131		·	
Surrogate: 4-Bromofluorobenzene	49			ug/L	50.0		98	51-122			
Surrogate: Dibromofluoromethane	47			ug/L	50.0		<i>95</i>	68-117			
Surrogate: Toluene-d8	46			ug/L	50.0		93	69-110			

LCS (0H05029-BS1)

Prepared: 08/05/2010 12:59 Analyzed: 08/06/2010 11:32

	Result Fla	g Hirl	Voits		ine in the said	NATEC #	RPD Limit Notes
1,1-Dichloroethene	19	1.0	ug/L	20.0	94	75-133	
Benzene	18	1.0	ug/L	20.0	92	81-134	
Chlorobenzene	20	1.0	ug/L	20.0	98	83-117	
Toluene	19	1.0	ug/L	20.0	97	71-118	
Trichloroethene	18	1.0	ug/L	20.0	92	75-115	

Matrix Spike (0H05029-MS1)

Source: C009177-04

Prepared: 08/05/2010 12:59 Analyzed: 08/06/2010 12:01

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	94REC Limits	RPD
1,1-Dichloroethene	20	1.0	ug/L	20.0	0.24 U	98	75-133	
Benzene	19	1.0	ug/L	20.0	0.20 U	94	81-134	
Chlorobenzene	19	1.0	ug/L	20.0	0.27 U	97	83-117	
Toluene	20	1.0	ug/L	20.0	0.27 U	100	71-118	
Trichloroethene	19	1.0	ug/L	20.0	0.38 U	96	75-115	

Matrix Spike Dup (0H05029-MSD1)

Source: C009177-04

Prepared: 08/05/2010 12:59 Analyzed: 08/06/2010 12:30

3001CE: C003177-04										
Aralyte 1	Result Flag	MRL.	Units	Spile Leve	Source Result	%REC	%REC Limits	RPD	RPO Limit	Notes
1,1-Dichloroethene	19	1.0	ug/L	20.0	0.24 U	96	75-133	2	20	
Benzene	18	1.0	ug/L	20.0	0.20 U	90	81-134	4	17	
Chlorobenzene	19	1.0	ug/L	20.0	0.27 U	97	83-117	0.6	16	
Toluene	20	1.0	ug/L	20.0	0.27 U	98	71-118	2	17	
Trichloroethene	19	1.0	ug/L	20.0	0.38 U	93	75-115	3	18	

Batch 0H09012 - EPA 5030B_MS



Volatile Organic Compounds by GCMS - Quality Control

olanic organic compound by control quantity control

Blank (0H09012-BLK1)			Prepared: 08/09/2010 10:25 Analyzed: 08/09/2010 15:19									
Analyte Land	Result	Flag	MRL	Units	Spile Lavei	/Source Result	%REC	PAREC RPD	Section 19 and the second section 19 and 19			
1,1,1-Trichloroethane	0.27	U	1.0	ug/L								
Benzene	0.20	U	1.0	ug/L								
Chloroethane	0.30	U	1.0	ug/L								
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L								
Ethylbenzene	0.20	U	1.0	ug/L								
m,p-Xylenes	0.48	U	2.0	ug/L								
o-Xylene	0.27	U	1.0	ug/L								
Toluene	0.27	U	1.0	ug/L								
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L								
Trichloroethene	0.38	U	1.0	ug/L								
Vinyl chloride	0.30	U	1.0	ug/L								
Xylenes (Total)	0.40	U	1.0	ug/L								
Surrogate: 1,2-Dichloroethane-d4	46			ug/L	50.0		92	57-131				
Surrogate: 4-Bromofluorobenzene	42			ug/L	50.0		84	51-122				
Surrogate: Dibromofluoromethane	46			ug/L	50.0		92	68-117				
Surrogate: Toluene-d8	43			ug/L	50.0		86	69-110				

LCS (0H09012-BS1)

Prepared: 08/09/2010 10:25 Analyzed: 08/09/2010 15:49

ARBIYE THE PLANT OF THE PARTY O	Result Play	MRL	**************************************	Spike Level	Solifice ************************************	WREC T	RPD
1,1-Dichloroethene	22	1.0	ug/L	20.0	109	75-133	
Benzene	21	1.0	ug/L	20.0	104	81-134	
Chlorobenzene	20	1.0	ug/L	20.0	99	83-117	
Toluene	20	1.0	ug/L	20.0	98	71-118	
Trichloroethene	20	1.0	ug/L	20.0	98	75-115	

Matrix Spike (0H09012-MS1)

Prepared: 08/09/2010 10:25 Analyzed: 08/09/2010 16:19

Source: C009353-04

Analyte	Result Flag	MRL	Ünits	Spike Level	Source Result	%REC	%REC Limits	RPD Limit & Note	
1,1-Dichloroethene	21	1.0	ug/L	20.0	0.24 U	106	75-133		
Benzene	21	1.0	ug/L	20.0	0.20 U	103	81-134		
Chlorobenzene	20	1.0	ug/L	20.0	0.27 U	99	83-117		
Toluene	20	1.0	ug/L	20.0	0.27 U	101	71-118		
Trichloroethene	19	1.0	ug/L	20.0	0.38 U	96	75-115		

Matrix Spike Dup (0H09012-MSD1)

Prepared: 08/09/2010 10:25 Analyzed: 08/09/2010 16:50

Source: C009353-04

Analyte 172	Result Flag	MRL	Units	Splike Level	Source Result	%REC	%REC Limits	RPD:	RPD Limit	Notes
1,1-Dichloroethene	21	1.0	ug/L	20.0	0.24 U	105	75-133	0.2	20	
Benzene	21	1.0	ug/L	20.0	0.20 U	103	81-134	0.5	17	
Chlorobenzene	20	1.0	ug/L	20.0	0.27 U	100	83-117	1	16	
Toluene	20	1.0	ug/L	20.0	0.27 U	102	71-118	0.4	17	
Trichloroethene	19	1.0	ug/L	20.0	0.38 U	96	75-115	0.2	18	

Classical Chemistry Parameters - Quality Control



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Blank (0H06006-BLK1) Prepared: 08/06/2010 07:21 Analyzed: 08/06/2010 08:21

Analytic (2)			MRL	Units	
Total Alkalinity	8000	U	15000	ug/L	

LCS (0H06006-BS1)

Prepared: 08/06/2010 07:21 Analyzed: 08/06/2010 08:22

ATE ATE	Result Flag	MRL	Units	Spike Level	SOURCE		
Total Alkalinity	100	15	mg/L	100	100	80-120	

Matrix Spike (0H06006-MS1)

Prepared: 08/06/2010 07:21 Analyzed: 08/06/2010 08:23

Source: C008837-01

Analyte		MRL	Units	Spike Lêvel	Source Result	%REC	%REC Limits RP	RPD
Total Alkalinity	96	15	mg/L	40.0	49	117	80-120	

Matrix Spike Dup (0H06006-MSD1)

Prepared: 08/06/2010 07:21 Analyzed: 08/06/2010 08:24

Source: C008837-01

Analyte, 2	Result 2 Flag	MRL	Units	Splice -	Source Result	%REC	- MREC 'Limits	RPD .	RPD Limit	Notes
Total Alkalinity	94	15	mg/L	40.0	49	112	80-120	2	25	

Batch 0H06011 - NO PREP

Blank (0H06011-BLK1)

Prepared: 08/06/2010 11:41 Analyzed: 08/06/2010 11:51

Analyte 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Result	Flag	MRL	Units	Spike Source SKREC Units RPD Unit Notes
Sulfide	31	U	100	ug/L	

LCS (0H06011-BS1)

Prepared: 08/06/2010 11:41 Analyzed: 08/06/2010 11:51

Ariolyte	Play	MRL	Units	Spile Level	Source Result %REC L	RPD RPD Notes
Sulfide	0.41	0.10	mg/L	0.401	101 8	0-120

Matrix Spike (0H06011-MS1)

Prepared: 08/06/2010 11:41 Analyzed: 08/06/2010 11:51

Source: C009062-01

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD Limit Notes
Sulfide	160	100	ug/L	401	31 U	41	80-120	QM-07

Matrix Spike Dup (0H06011-MSD1)

Prepared: 08/06/2010 11:41 Analyzed: 08/06/2010 11:51

Source: C009062-01

Analyte	Result Flag	MŘL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD #	RPD Limit	Notes
Sulfide	150	100	ug/L	401	31 U	38			25	

Batch OHO9017 - NO PREP

Blank (0H09017-BLK1) Prepared: 08/09/2010 11:05 Analyzed: 08/09/2010 22:41



Classical Chemistry Parameters - Quality Control

Batch 0H09017 - NO PREP

Blank (0H09017-BLK1) Continued

Prepared: 08/09/2010 11:05 Analyzed: 08/09/2010 22:41

Analyte 7	Result	Flag	MRL	Units	Splice Source SAREC RED RED Limit Motes
Chloride	18	U	5000	ug/L	
Sulfate as SO4	120	U	5000	ug/L	

LCS (0H09017-BS1)

Prepared: 08/09/2010 11:05 Analyzed: 08/09/2010 23:00

Analyte Francisco	Result Fla) MRL			Source Result WREC	ecrec RPD Units Notes
Chloride	49	5.0	mg/L	50.0	98	90-110
Sulfate as SO4	47	5.0	mg/L	50.0	95	90-110

Matrix Spike (0H09017-MS1)

Prepared: 08/09/2010 11:05 Analyzed: 08/09/2010 23:18

Source: C008837-01

Analyte	Result Flag	MRL	Units	Spike Level	Source Result	%REC	96REC Limits 2	RPD . Limit Notes	and the same
Chloride	93	5.0	mg/L	20.0	73	103	80-120		
Sulfate as 5O4	51	5.0	mg/L	20.0	32	96	80-120		

Matrix Spike Dup (0H09017-MSD1)

Prepared: 08/09/2010 11:05 Analyzed: 08/09/2010 23:37

Source: C008837-01

Aristyte		MRL	Date	Solte Level	Source Result	%REC	%REC Limits	RPD .	teo. Link A	obeš 🔭
Chloride	93	5.0	mg/L	20.0	73	101	80-120	0.4	15	
Sulfate as SO4	51	5.0	mg/L	20.0	32	94	80-120	0.6	15	

QUALITY CONTROL

Dissolved Gases by GC - Quality Control

Batch 0H11015 - NO PREP ANALYTIX

Blank (0H11015-BLK1)

Prepared: 08/11/2010 11:42 Analyzed: 08/11/2010 13:11

Añalyte	Result	Hag	MRL	Units	Splice Source %REC RPD Limit Notes
Carbon dioxide	780	U	2500	ug/L	
Ethane	0.450	U	2.00	ug/L	
Ethene	0.410	υ	2.00	ug/L	
Methane	0.250	U	1.00	ug/L	

LCS (0H11015-BS1)

Prepared: 08/11/2010 11:42 Analyzed: 08/11/2010 13:15

Analyte	Result Flag		Units	Spike Level	Source Select RPD RPD Limit Notes	
Carbon dioxide	29200	2500	ug/L	26300	111 71-119	
Ethane	180	2.00	ug/L	179	101 75-123	
Ethene	176	2.00	ug/L	167	105 72-131	
Methane	96.5	1.00	ug/L	95.8	101 74-116	

Matrix Spike (0H11015-MS1)

Source: C009062-01

Prepared: 08/11/2010 11:42 Analyzed: 08/11/2010 13:30



Dissolved Gases by GC - Quality Control

Batch OH11015 - NO PREP ANALYTIX

Matrix Spike (0H11015-MS1) Continued

Source: C009062-01

Prepared: 08/11/2010 11:42 Analyzed: 08/11/2010 13:30

Arralyte	i i i i i i i i i i i i i i i i i i i	Flag	MRL	Units	Splice Level	Source Result	%REC	MAREC Limits RPD	RPD
Carbon dioxide	722000	E	2500	ug/L	26300	725000	NR	71-119	QM-02
Ethane	144		2.00	ug/L	179	0.450 U	81	75-123	
Ethene	136		2.00	ug/L	167	0.410 U	82	72-131	
Methane	282		1.00	ug/L	95.8	213	72	74-116	QM-02

Matrix Spike Dup (0H11015-MSD1)

Source: C009062-01

Prepared: 08/11/2010 11:42 Analyzed: 08/11/2010 13:34

Analyte	Result	, Flag	MRL	Units	Spike Level	Source Result	%ŘÉC	%REC Limits	ŘPĎ	RPD Limit	Notes
Carbon dioxide	727000	E	2500	ug/L	26300	725000	7	71-119	0.7	10	QM-02
Ethane	161		2.00	ug/L	179	0.450 U	90	75-123	11	14	
Ethene	153		2.00	ug/L	167	0.410 U	91	72-131	11	12	
Methane	292		1.00	ug/L	95.8	213	83	74-116	4	18	

Volatile Fatty Acids by HPLC - Quality Control

Batch OH11010 - NO PREP ANALYTIX

Blank (0H11010-BLK1)

Prepared: 08/11/2010 10:43 Analyzed: 08/12/2010 08:52

省,基现 代的企作的。			LAN			ource	%REC.	RPD	多国门 车
Analyte	Result :	Flag	MRL	Units	Level 1	tesuit %REC	· Limits 🙊 🖽	RPD : Limit	Notes *
Acetic Acid	83	υ	500	ug/L					
Butyric Acid	160	U	500	ug/L					
Hexanoic Acid	230	U	1000	ug/L					
HIBA (2-Hydroxyisobutyric Acid)	160	U	500	ug/L					
iso-Hexanoic Acid	210	U	1000	ug/L					
iso-Pentanoic Acid	260	U	500	ug/L					
Lactic Acid	44 0	U	500	ug/L					
Pentanoic Acid	270	U	500	ug/L					
Propionic Acid	180	U	500	ug/L					
Pyruvic Acid	140	U	500	ug/L					
Surrogate: Trimethylacetic acid	59000			ug/L	50000	119	80-124		

LCS (0H11010-BS1)

Prepared: 08/11/2010 10:43 Analyzed: 08/12/2010 09:55

				Splike	Source	%REC	RPD
Analyte	Result Fla	g MRL	Units	Level	Result %REC	Limits RP	D :Limit 字 表示 Notes
Acetic Acid	18000	500	ug/L	20000	89	73-125	
Butyric Acid	23000	500	ug/L	20000	116	80-120	
Hexanoic Acid	21000	1000	ug/L	20000	104	78-120	
HIBA (2-Hydroxyisobutyric Acid)	17000	500	ug/L	20000	87	80-120	
iso-Hexanoic Acid	22000	1000	ug/L	20000	111	80-120	
iso-Pentanoic Acid	23000	500	ug/L	20000	116	78-120	
Lactic Acid	17000	500	ug/L	20000	83	56-154	
Pentanoic Acid	22000	500	ug/L	20000	110	77-120	
Propionic Acid	18000	500	ug/L	20000	92	80-120	
Pyruvic Acid	15000	500	ug/L	20000	74	37-142	
Surrogate: Trimethylacetic acid	49000		ug/L	50000	99	80-124	



Volatile Fatty Acids by HPLC - Quality Control

Batch OH11010 - NO PREP ANALYTIX

Matrix Spike (0H11010-MS1)

Source: C009062-01

Prepared: 08/11/2010 10:43 Analyzed: 08/12/2010 10:57

				- Splike Level	Source		%REC	RPD
Aralyle	Result Flag	MRL	Units	Level	Result	%REC	Limits	RPD Limit Notes
Acetic Acid	16000	500	ug/L	20000	83 U	79	73-125	
Butyric Acid	21000	500	ug/L	20000	160 U	105	80-120	
Hexanoic Acid	19000	1000	ug/L	20000	230 U	95	78-120	
HIBA (2-Hydroxyisobutyric Acid)	17000	500	ug/L	20000	160 U	84	80-120	
iso-Hexanoic Acid	21000	1000	ug/L	20000	2600	90	80-120	
iso-Pentanoic Acid	24000	500	ug/L	20000	260 U	120	78-120	
Lactic Acid	18000	500	ug/L	20000	440 U	90	56-154	
Pentanoic Acid	16000	500	ug/L	20000	270 U	78	77-120	
Propionic Acid	22000	500	ug/L	20000	180 U	108	80-120	
Pyruvic Acid	16000	500	ug/L	20000	140 U	78	37-142	
Surrogate: Trimethylacetic acid	58000		ug/L	50000		115	80-124	

Matrix Spike Dup (0H11010-MSD1)

Source: C009062-01

Prepared: 08/11/2010 10:43 Analyzed: 08/12/2010 12:00

			Marine Con-	Spile	Source	n vijen Krugen	* SEEC		PP
ANNYLE CONTROL OF THE CONTROL OF STREET	Result Flag	MRL	Units	Level	**Result	**************************************	¥alimits •	RPD	- Limit - Notes
Acetic Acid	15000	500	ug/L	20000	83 U	77	73-125	3	10
Butyric Acid	20000	500	ug/L	20000	160 U	101	80-120	4	10
Hexanoic Acid	22000	1000	ug/L	20000	230 U	109	78-120	14	34
HIBA (2-Hydroxyisobutyric Acid)	16000	500	ug/L	20000	160 U	82	80-120	2	15
iso-Hexanoic Acid	19000	1000	ug/L	20000	2600	85	80-120	5	15
iso-Pentanoic Acid	23000	500	ug/L	20000	260 U	114	78-120	5	15
Lactic Acid	20000	500	ug/L	20000	440 U	101	56-154	11	19
Pentanoic Acid	17000	500	ug/L	20000	270 U	83	77-120	6	10
Propionic Acid	22000	500	ug/L	20000	180 U	109	80-120	1	10
Pyruvic Acid	16000	500	ug/L	20000	140 U	81	37-142	4	10
Surrogate: Trimethylacetic acid	55000		ug/L	50000		109	80-124		

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 0H09013 - NO PREP

Blank (0H09013-BLK1)

Prepared: 08/09/2010 12:16 Analyzed: 08/09/2010 13:47

Analyte	Result	Flag	MRL	Units	Spile S Level P	ource lesuit %REC	96REC Limits	RPI RPD Lim) It Notes
Total Organic Carbon	320	U	1000	ug/L					

LCS (0H09013-BS1)

Prepared: 08/09/2010 12:16 Analyzed: 08/09/2010 13:47

Analyte	Result Fla) MRL	Units	Spike Level	Source :	%REC Limits	RPD Limit Notes
Total Organic Carbon	44000	1000	ug/L	41600	106	85-115	

Matrix Spike (0H09013-MS1)

Source: A004252-01

Prepared: 08/09/2010 12:16 Analyzed: 08/09/2010 13:47



Classical Chemistry Parameters - Quality Control

Batch 0H09013 - NO PREP

Matrix Spike (0H09013-MS1) Continued

Source: A004252-01

Prepared: 08/09/2010 12:16 Analyzed: 08/09/2010 13:47

Prepared: 08/09/2010 12:16 Analyzed: 08/09/2010 13:47

Analyte	Résult Flag	MRL	Units	Splice Level	Source Result	%REC	%REC Limits	RPD Limit Notes
Total Organic Carbon	49000	1000	ug/L	40000	7200	106	85-115	

Matrix Spike Dup (0H09013-MSD1)

Source: A004252-01

No. of the control of

	Result Flag		Units	Spike Level	Source Result	%REC	%REC Limits	RPD		Notes
Total Organic Carbon	49000	1000	ug/L	40000	7200	106	85-115	0.05	21	



FLAGS/NOTES AND DEFINITIONS

В	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
Е	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.



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Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 1 of 8
Lab Proj #: P1008093
Report Date: 08/13/10
Client Proj Name: White Street LF

Client Proj #: 1584-98-081

Labo	ratory	Res	uits
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Total pages in data package:

Lab Sample #	Client Sample ID
P1008093-01	MW-14
P1008093-02	Ii-1
P1008093-03	II-2
P1008093-04	II-2B
P1008093-05	H-7
P1008093-06	II-7B
P1008093-07	11-9

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By:	Xlilbretallo	Date:	8.16.10	
Project Manager:	Debbie Hallo			

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.

Please call customer service at (412)826-5245 or email customerservice@microseeps.com.

Case Narrative:

Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 2 of 8

Lab Proj #: P1008093 Report Date: 08/13/10 Client Proj Name: White Street LF

Client Proj #: 1584-98-081

iskAnalysis	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1008093-01		Sampled Date/Time 04 Aug. 10 9:40	<u>Received</u> 09 Aug. 10 10:56		
Analyte(s)	Result	PQL Units		Method #	Analysis Date	Ву	
RiskAnalysis	0.820	0.600	nM	AM20GAX	8/12/10	sl	

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 3 of 8 Lab Proj #: P1008093 Report Date: 08/13/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1008093-02		Sampled Date/Time 02 Aug. 10 15:45	<u>Received</u> 09 Aug. 10 10:56	
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	4.800	0.600	пМ	AM20GAX	8/11/10	sl

Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 4 of 8
Lab Proj #: P1008093
Report Date: 08/13/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Sample Description II-2	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1008093-03		Sampled Date/Time 03 Aug. 10 10:45	<u>Received</u> 09 Aug. 10 10:56	
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву
RiskAnalysis N Hydrogen	0.910	0. 60 0	nM	AM20GAX	8/12/10	sl

Client Name: S & ME
Contact: Connel Ware
Address: 3718 Old Battleground Road
Greensboro, NC 27410

Lab Proj #: P1008093
Report Date: 08/13/10
Client Proj Name: White Street LF
Client Proj #: 1584-98-081

Page: Page 5 of 8

Sample Description II-2B	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1008093-04		Sampled Date/Time 03 Aug. 10 8:55	<u>Received</u> 09 Aug. 10 10:5	56	
Analyte(s)	Result	PQL Units		Method #	Analysis Date		
RiskAnalysis N Hydrogen	6.000	0.600	nM	AM20GAX	8/12/10	sl	

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 6 of 8 Lab Proj #: P1008093 Report Date: 08/13/10 Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-7	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1008093-05		Sampled Date/Time 03 Aug. 10 15:50	<u>Received</u> 09 Aug. 10 10:56		
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву	
<u>RiskAnalysis</u> N Hydrogen	1.500	0.600	nM	AM20GAX	8/12/10	sl	

Client Name: S & ME

Contact: Connel Ware

Address: 3718 Old Battleground Road

Greensboro, NC 27410

Page: Page 7 of 8 Lab Proj #: P1008093 Report Date: 08/13/10

Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-7B	<u>Matrix</u> Vapor	<u>Lab Sample #</u> P1008093-06	•	Sampled Date/Time 03 Aug. 10 14:10	<u>Received</u> 09 Aug. 10 10:56		
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву	
RiskAnalysis N Hydrogen	1.100	0.600	nM	AM20GAX	8/12/10	sł	

Client Name: S & ME Contact: Connel Ware

Address: 3718 Old Battleground Road Greensboro, NC 27410

Page: Page 8 of 8 Lab Proj #: P1008093 Report Date: 08/13/10 Client Proj Name: White Street LF Client Proj #: 1584-98-081

Sample Description II-9	<u>Matrix</u> Vapor			Sampled Date/Time 03 Aug. 10 12:30	<u>Received</u> 09 Aug. 10 10:56		
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	Ву	
<u>RiskAnalysis</u> N Hydrogen	0.890	0.600	nM	AM20GAX	8/12/10	sl	



Microseeps Lab. Proj. #

P1008093

CHAIN - OF - CUSTODY RECORD

Microseeps COC cont. #

Phone: (412) 826-524	5 Micro	seeps,	Inc 220)	William	Pitt Way	- Pittsburgh,	PA 152	38	Fax	No. : (412) 826-3433	
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YELLOW COPY: Laboratory File

PINK COPY : Submitter